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QUALITY ASSURANCE AND WORKFORCE DEVELOPMENT PROJECT: YEAR FOUR ANNUAL REPORT

Performance Period: July 1, 2005–June 30, 2006

Contract Number GPH-C-00-02-00004-00



JULY 31, 2006

This publication was produced for review by the United States Agency for International Development and prepared by the Quality Assurance Project.

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Abbreviations

ACT	Artemisinin Combination Therapy
ADD	Aplahoue-Dogbo-Djakotome (Benin)
AFASS	Accessible, Feasible, Affordable, Sustainable, and Safe
AIHA	American International Health Alliance
AIM	AIDS/HIV Integrated Model District Programme
AIMA	<i>Programa de Atención Integral de la Mujer y Adolescencia</i>
AIN-C	Integrated child health activities at the community level (<i>Atención Integral a la Niñez en la Comunidad</i>)
AMTSL	Active Management of Third Stage of Labor
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
BCC	Behavior Change Communication
CBT	Computer-Based Training
CCP	Critical Care Pathway
CD-ROM	Compact Disc-Read Only Memory
CQI	Continuous Quality Improvement
C&T	Counseling and Treatment
CTC	Counseling and Treatment Center (Tanzania)
DOH	Department of Health (South Africa)
DOT	Directly Observed Therapy
DPQS	Division for the Promotion of Quality Services (Rwanda)
DSR	<i>Direction de la Santé de la Reproduction</i> (Niger)
DSS	Directorate of Healthcare (Rwanda)
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EMPS	<i>Empresas Médicas Previsionales</i>
EOC	Essential Obstetric Care
EONC	Essential Obstetric and Newborn Care
ETAT	Emergency Triage, Assessment, and Treatment
FCI	Family Care International
FHI	Family Health International
FP	Family Planning
GDF	Global Drug Facility
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GHC	Global Health Council
HCV	Hepatitis C Virus
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HR	Human Resources
HRD	Human Resources Development
HRM	Human Resources Management
HRSA	Health Resources and Services Administration
HSA	Health Service Area
IBP	Implementing Best Practices
IDU	Intravenous drug user
IEC	Information, education, and communication
IHI	Institute for Healthcare Improvement
IMCI	Integrated Management of Childhood Illness
IMNCI	Integrated Management of Newborn and Childhood Illness
IPT	Isoniazid Preventive Therapy

ISQua	International Society for Quality in Health Care
IYCF	Infant and Young Child Feeding
JSI	John Snow Inc.
KCMC	Kilimanjaro Christian Medical Centre
LAC	Latin America and Caribbean
MANCORSARIC	Municipality of Santa Rita of Copan (Honduras)
MAQ	Maximizing Access and Quality
MCH	Maternal and Child Health
MIFAMILIA	Ministry of the Family (Nicaragua)
MINSa	Ministry of Health (Nicaragua)
MMR	Maternal Mortality Rate
MMRI	Maternal Mortality Reduction Initiative
MOH	Ministry of Health
MOHSD	Ministry of Health and Social Development (Russia)
MOHSW	Ministry of Health and Social Welfare
MSH	Management Sciences for Health
NMCC	National Malaria Control Center (Zambia)
NDOH	National Department of Health (South Africa)
NGO	Nongovernmental Organization
NTCP	National Tuberculosis Control Program (Swaziland)
NTP	National Tuberculosis Program
OFDA	Office of U.S. Foreign Disaster Assistance
OGAC	Office of the Global AIDS Coordinator
OI	Opportunistic Infections
OPD	Outpatient Department
OR	Operations Research
OVC	Orphans and Vulnerable Children
PAHO	Pan American Health Organization
PAK	Pobe-Adja-Ouere-Ketou (Benin)
PCP	Pneumocystic Carini Pneumonia
PDOH	Provincial Department of Health (South Africa)
PDSA	Plan, Do, Study, Act
PEPFAR	President's Emergency Plan for AIDS Relief
PHI	Pediatric Hospital Improvement
PHR _{plus}	Partners for Health Reform Plus Project
PISAF	<i>Projet Intégré de Santé Familiale</i>
PLWHA	Persons Living With HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PNLP	National Malaria Control Program (Rwanda)
POPPHI	Prevention of Postpartum Hemorrhage Initiative
PPM	Public-Private Mix
PREFA	Protecting Families Against AIDS
PSI	Population Services International
QA	Quality Assurance
QAP	Quality Assurance Project
QI	Quality Improvement
QoC	Quality of Care
RAAN	North Atlantic Autonomous Region
RAAS	South Atlantic Autonomous Region
RCHS	Reproductive and Child Health Service (Tanzania)
RCM	Referral Care Manual

RDT	Rapid Diagnostic Test
RPM+	Rational Pharmaceutical Management Plus Project
SBA	Skilled Birth Attendant
SEDES	Departmental Secretariat of Health (Bolivia)
SILAIS	Local Integrated Health Care System (Nicaragua)
SO	Strategic Objective
SOH	Secretariat of Health (Honduras)
STI	Sexually Transmitted Infection
SWAA	Society for Women and AIDS in Africa
TASC2	Technical Assistance and Support Contract 2/Global Health
TB	Tuberculosis
TRAC	Treatment and Research AIDS Center (Rwanda)
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Emergency Fund
UPHOLD	Uganda Program for Human and Holistic Development
URC	University Research Co., LLC
USAID	United States Agency for International Development
USG	United States Government
VCT	Voluntary Counseling and Testing
WD	Workforce Development
WHO	World Health Organization
WHO/AFRO	Regional Office for Africa of the World Health Organization

Executive Summary

In its fourth contract year, the Quality Assurance and Workforce Development Project (QAP) saw expansion in field activities in Ecuador, Honduras, Nicaragua, Niger, Russia, Rwanda, and Tanzania; the start-up of new country programs in Lesotho, Swaziland, and Uganda; and the close-out of support to Malawi and Eritrea. New technical work was initiated related to expanding and better integrating newborn care within maternal care; mainstreaming tools and approaches for health systems strengthening within USAID's health portfolio; and applying QA methods to strengthen programming for orphans and vulnerable children.

Improvement collaboratives continued to be the dominant technical approach applied in QAP-supported field activities, largely due to the strength of the results produced through collaboratives and their effectiveness as a methodology for systematic scale-up of best practices. In its first four years, QAP has implemented 24 collaboratives in 11 developing countries. Currently, the project is supporting 13 collaboratives in eight countries. It is worth noting that collaboratives in both Niger and Uganda are being implemented at national scale, with participating sites in almost all districts or regions.

The launch of the essential obstetric and newborn care (EONC) collaborative in Niger is a particularly important achievement given that maternal and newborn mortality rates in that country are among the very highest in the world. Newborn survival is integrally related to the quality of maternal pregnancy and delivery care, but in practice the newborn is often ignored after a skilled delivery. Yet, proven low-cost interventions can have a dramatic impact on newborn survival. The new EONC collaborative is leveraging the existent pediatric hospital improvement collaborative infrastructure and capacity to integrate known best maternal and newborn care practices into routine care at all three national maternity hospitals, four of the five regional hospitals, and 64% of Niger's district hospitals.

QAP's program in South Africa continued to support the National Department of Health and Provincial Departments of Health in expanding and improving quality of counseling and testing services, prevention of mother-to-child transmission (PMTCT) of HIV/AIDS, and the continuum of care and treatment for patients with HIV/AIDS. Quality improvement (QI) activities were re-introduced in North West Province with the appointment of a new provincial QA coordinator. QAP launched a national antiretroviral treatment collaborative with the Ministry of Health of Uganda, with 57 sites in 91% of districts. In Tanzania, the Ministry of Health funded the extension of the pediatric AIDS and hospital improvement collaborative to 15 new hospitals in three northern regions. The family planning collaborative, involving 15 sites, ended with its final learning session in July 2006.

Building on solid improvements achieved in sites participating in the HIV/AIDS care, treatment, and support collaborative initiated in December 2004 in four territories of the Russian Federation, a new collaborative was initiated in 2006 to improve family planning services for persons with HIV/AIDS.

This year, QAP played a catalytic role in changing Ecuador's national maternal health policies to adopt active management of the third stage of labor as part of the country's official norms. To complement the work of the EOC collaborative, which is being implemented with provincial health authorities in 13 of the country's 22 provinces, QAP is now supporting the Ministry of Health to launch a national spread collaborative to extend the practice of active management to all facilities attending births in the other nine provinces where it has not been formally introduced. In Honduras, QAP's program tripled in size as a result of the USAID Mission's request that QAP expand its technical support to integrate quality assurance with health sector reform initiatives on decentralization and pay-for-performance and with USAID support for reproductive and child health services. In Nicaragua, QAP completed its assistance to PROFAMILIA, which has consolidated its QA program, and added a new area of technical support to the Ministry of Health in developing standards for HIV counseling and testing and improving service quality in the expanding PMTCT program.

QAP's ongoing program of documentation, evaluation, and operations research related to collaboratives has yielded a broad set of data on the experiences of all the collaboratives conducted to date. An intensive week of sharing of experiences in implementing collaboratives took place in June 2006, with field staff from nine countries and headquarters staff analyzing lessons in planning, starting up, and managing collaboratives. A series of field evaluations of QAP-supported collaboratives was planned, beginning with Tanzania in July 2006. Since most collaboratives rely on self-assessed data on compliance with standards to measure improvement over time, QAP initiated this year a new study on the validity of the self-generated data in the EOC collaborative in Ecuador. A similar study to measure the sequential validity of self-assessment in the pediatric hospital improvement (PHI) collaborative in Tanzania is in planning.

A new study to develop and field test health work job aids to improve rapid testing for malaria was started in Zambia. Work progressed on 20 other operations research studies during the year: four were completed and results published; another six have final reports in editing. Studies completed during the year include the analysis of questions added to the national demographic and health survey in Ecuador on factors influencing site of delivery and three studies emerging from the safe motherhood research data sets from Benin, Ecuador, Jamaica, and Rwanda. Other studies in the final data analysis or reporting phases include the research in Nicaragua to apply simpler tools for assessing skilled birth attendants' (SBAs') competence to a national sample of health providers, the Kenya field test of the updated integrated management of childhood illness (IMCI) computer-based learning tool, and a rapid assessment of ARV treatment services in South Africa. Subcontractor Initiatives Inc. completed two major workforce-related studies: one on the human resources implications of HIV/AIDS services scale-up in Rwanda and the other on performance-based incentives for health workers in Zambia.

During Year Four, QAP published six operations research reports, one technical report, and one evaluation report. Staff delivered six presentations to USAID and cooperating agencies, and QAP work was presented at ten international and regional conferences. Two manuscripts were submitted to *The Lancet* in May 2006 for consideration for the journal's upcoming maternal mortality reduction series, and another five manuscripts were either drafted or submitted for publication to various journals. The QAP collaborative extranet was further developed, and the appearance and functionality of the data graphing module were modified to improve usability. In Rwanda, 15 teams in the PMTCT collaborative used the QAP Eextranet to enter and view data and improvement reports.

1 Introduction

This annual report of the Quality Assurance and Workforce Development Project, widely known as the Quality Assurance Project or QAP, describes the activities and results of the contract during the fourth project year, covering the period July 1, 2005 to June 30, 2006.

QAP's objectives are to:

- Build capacity in countries to develop and sustain quality assurance and workforce improvement activities
- Assist countries to achieve demonstrable results in quality of care and outcomes
- Strengthen USAID programming under its Global Health Strategic Objective (SO) programs through quality assurance (QA) approaches, methods, and tools
- Carry out research to develop and test new QA and workforce development approaches and methods
- Provide leadership in the technical development of the quality improvement field and in advocacy of the essential goal of high quality of care worldwide.

QAP is managed by University Research Co., LLC (URC). Small business subcontractors Initiatives Inc.; EnCompass, LLC; ARTT International; and Dragonfly Communications also contributed to the implementation of QAP activities during the past year.

The major sections of this report reflect the main components of the contract scope of work. Institutionalization refers to the project's long-term activities to support the development of institutionalized QA programs in USAID-assisted countries. Reports of the past year's field activities are presented alphabetically by geographic region and country. These are followed by descriptions of progress achieved under the project's core technical activities and USAID strategic objectives.

2 Institutionalization

Africa

2.1 Benin

Background

In Benin, both antenatal care coverage at 80% and skilled birth attendant coverage at 65% are higher than in many other African countries. Despite relatively better access to care, the maternal mortality ratio has remained static in the past decade, and Benin still has one of the highest maternal mortality rates in the world at 475 maternal deaths per 100,000 live births. Persistent high maternal mortality, despite relatively good access to skilled care, inevitably raises questions about the quality of care and highlights the need to move beyond the policy level to more effective program implementation. The recently published "National strategy for the reduction of maternal and newborn mortality" identifies poor quality care as a major contributor to poor health outcomes.

Since late 2004, QAP has been working with the Ministry of Health to support an essential obstetric care collaborative in two health districts: Pobe-Adja-Ouere-Ketou (PAK) and Aplahoue-Dogbo- Djakotome (ADD). The aim of the collaborative is to improve the quality of maternal and newborn care and to develop an operational model which can be spread to other districts. There are 15 facilities in the collaborative: three regional hospitals, two district hospitals, and five health centers and large health posts in each district. QAP's key partner in the collaborative is the Division of Family Health in the Ministry

of Health (MOH) but other stakeholders who are actively involved in program implementation are the United Nations Fund for Population Activities (UNFPA), the United Nations Children's Fund (UNICEF), and Intrahealth. UNFPA and UNICEF are providing both technical support and equipment in the two districts, and Intrahealth has supported development of national protocols and training curricula for essential obstetric and newborn care.

Activities and Results

Essential Obstetric and Newborn Care Improvement Collaborative

The third learning session of the collaborative was held in January 2006, followed by a third round of supportive supervision. Priority technical areas addressed by the collaborative have included use of the partograph, active management of the third stage of labor (AMTSL), data use, and antenatal care (ANC). In each participating facility, quality improvement teams of on average four to eight members have been formed (often the majority of the staff in the smaller facilities). Team members (midwives, nurses, or doctors) from each facility serve as improvement coaches and have helped staff define specific quality barriers that can be addressed in each facility. For example, certain facilities interviewed clients to discover that privacy was an important concern for many women, and as a result installed curtains in the labor wards and antenatal consultation rooms. Other facilities, identifying through their self-monitoring that compliance with ANC standards was poor, decided to change and improve their ANC cards. (The cards serve as a job aid for the provider as well as facilitating the recording of each ANC consultation.)

As a result of these efforts, there have been significant and sustained improvements in several areas, most notably, in AMTSL and partograph use. Between February 2005 and January 2006, data collected in the 10 peripheral sites (health centers and posts) showed that:

- The proportion of ANC visits meeting identified standards rose from 58% to over 90%
- The proportion of partographs completed according to standards rose from 56% to 82%
- The proportion of deliveries in which AMTSL was implemented increased from 2% to over 80%.

This progress is still fragile, however, and additional work is necessary, particularly in specific technical areas such as newborn care, infection prevention, and case management of obstetric and newborn complications. Hospitals have demonstrated more difficulties in making quality improvement changes than have lower level facilities.

Since February 2006, however, coaching support to the 15 teams participating in the collaborative has not been possible because of a lack of transport and the departure of QAP's coordinator to the new PISAF bilateral project. In May 2006, Maina Boucar, Sabou Djibrina, and Mandy Rose visited Benin to revitalize the collaborative and to explore investing additional SO3 core funds to strengthen newborn health and to link essential obstetric and newborn care (EONC) with services to prevent mother-to-child transmission of HIV (PMTCT), and link facility-based services with community care. Benin had been identified as a potentially suitable country for this additional investment because of the presence of an existing collaborative, a national PMTCT service, and facilities which are comparatively more accessible to the population than in other countries.

The visiting QAP team found that major progress has been achieved at the health center/post level and that this progress has been sustained in some facilities without regular supervision from collaborative staff. Nevertheless, much more remains to be done. Providers observed by the QAP team were not counseling women about danger signs or birth planning during ANC, delivery ward hygiene was poor, and there was no preparation for potential emergency admissions, despite all three areas being part of MOH policies. Moreover, maternity wards were full of equipment that was dirty or which was not working for lack of simple maintenance. There was an almost universal neglect of the needs of newborns.

Although the MOH does have in place the policies and protocols to advance newborn health, there is a huge need to support the implementation of best practices to improve EONC and care of the sick and vulnerable newborn. The MOH Family Health and PMTCT directorates are interested in the expanded EONC collaborative concept because newborn health and better integration between PMTCT and maternal and newborn health services are both MOH priorities. To date there has been little experience in Benin with implementing programs to improve newborn health.

The team met with staff of PLAN International, which is working in the ADD district. PLAN's health activities include supporting PMTCT at the facility and community level and community activities in nutrition and integrated management of childhood illness.

Directions for FY07

In the coming year, the collaborative will build on the progress made in maternal healthcare and add emphasis on delivery ward hygiene, essential newborn care, and postnatal care of the mother and baby. QAP will coordinate with PLAN International in the ADD district to work with their community health volunteers with the aim of integrating newborn health into the existing community-level activities. A midwife coordinator has already been hired to work with the facility teams and with the zonal health coordinator and will begin work in late July. A project director will be hired in August.

In addition, the new PISAF Project has the five-year mandate to help the MOH implement its new maternal and newborn health strategy. QAP has held preliminary discussions with the PISAF team, and both projects will work collaboratively, perhaps in the first instance extending the collaborative into PISAF facilities within a district contiguous with ADD.

2.2 Eritrea

In 2001, QAP began technical support to the Ministry of Health of Eritrea to improve the quality of health services through the integration of quality assurance methods within the daily care delivered to women and children in primary health facilities and hospitals, and through the development and dissemination of standards, especially for hospitals. During 2004, the quality assurance institutionalization activities funded through QAP were transferred to the TASC2 project, although limited QAP assistance continued to help reactivate the pediatric hospital improvement (PHI) collaborative which had been launched in Eritrea in December 2002 and provide support for the development of supervisory and monitoring tools for pediatric care. Following a QAP staff visit in March 2005, the MOH took steps to prioritize the improvement of pediatric hospital care, including incorporating pediatric hospital care protocols developed with QAP support into the National Emergency Care guidelines and renewing MOH supervision visits to hospitals participating in the collaborative. In June 2005, the concept of PHI was introduced to an additional 10 hospitals, and a number of the original collaborative hospitals participated. Hospitals were also introduced to an "essential change package" consisting of emergency triage, assessment, and treatment, patient vital signs monitoring and recording (chart review), and the treatment of malnourished children.

During the first quarter of Year Four, however, all QAP support was phased out due to the closure of the USAID Mission in Eritrea in October 2005. From June through October 2005, QAP partnered with TASC2 to introduce a low-cost technology to overcome a key barrier to infection prevention: the scarcity of chlorine-based disinfectant, which had to be imported. QAP provided Halibet Central Hospital in Maekel Zone with a simple-to-operate chlorine production machine capable of producing sodium hypochlorite at a 0.6% solution that is a safe and very effective disinfectant for health equipment and facilities. The machine is projected to save the hospital several thousand dollars per year in disinfectant costs as well as supply enough disinfectant to meet the needs of all health centers and posts in the zone. Five more machines—one for each of the country's other five zonal hospitals—were delivered in October 2005.

2.3 Lesotho

Background

USAID's Regional HIV/AIDS Office in Southern Africa asked QAP in April 2005 to assist the Ministry of Health and Social Welfare (MOHSW) to conduct an assessment of tuberculosis (TB) and HIV co-infection in Lesotho. QAP, along with the World Health Organization's Africa Regional Office (WHO/AFRO) and National Tuberculosis Program (NTP) staff, conducted a rapid assessment of TB and TB-HIV collaborative activities in June 2005. The assessment team recommended that the Ministry establish joint TB-HIV committees at all levels and that the NTP and HIV/AIDS Directorate should develop joint operational plans covering training, monitoring and evaluation, and information, education, and communication (IEC). QAP developed a plan of technical assistance to the MOHSW for policy development and to help the NTP and HIV/AIDS Directorate develop integrated service delivery models and algorithms for health facilities and providers. QAP will also develop clinical training on HIV-TB and other support systems (supervision, recording, and reporting, etc.) for the Ministry, NTP, and other service delivery partners; train service providers in TB-HIV coordinated activities; and train program managers in planning, monitoring, and supervision.

Activities and Results

QAP is currently assisting five Health Service Areas (HSA) to strengthen TB and TB-HIV management: Maseru, Berea, Leribe, Ntsekhe, and Roma. Staff of other HSA's are encouraged to participate in training workshops. During the past year, quarterly support visits were conducted to the five HSAs. The key areas of support included:

- **Recording and reporting:** QAP assisted the NTP to introduce the newly developed WHO TB registers that include HIV indicators. The aim is to increase access to HIV testing for TB patients, ensure early referral for antiretroviral (ARV) treatment for co-infected patients, and ensure that co-infected patients are provided with cotrimoxazole prophylaxis. The new registers have now been printed and circulated to all public healthcare facilities.
- **Development of guidelines:** QAP also contributed to discussions about TB-HIV management during the development of antiretroviral therapy (ART) guidelines in Lesotho. A chapter on TB-HIV management has been included. The Ministry of Health and Social Welfare has still not adopted the provision of Isoniazid Preventive Therapy (IPT) as a national policy, due to the difficulties of screening clients to exclude active TB and of monitoring patients who are on prophylaxis.
- **Supervisory visits:** On-the-job training was provided during quarterly supervisory visits by QAP's coordinator and a staff member from the national laboratory and pharmacy.
- **TB-HIV training:** Training for TB coordinators was conducted by the Healthy Life Styles Clinic on HIV-TB co-infection. Nineteen healthcare providers working in TB clinics were trained; thereafter they were attached to clinics for practical work.

QAP has also worked with the NTP to expand access to TB services through the private sector, conducting training for 30 public and private doctors to introduce Public-Private Mix Directly Observed Therapy (PPM DOT) and TB-HIV case management. Sixteen doctors started implementing PPM DOT in October 2005. URC developed a guideline on PPM DOT and also a draft Memorandum of Understanding between the MOHSW and the private practitioners. A follow-up workshop was held in April 2006 to discuss progress. All doctors participating in PPM DOT are provided with TB drugs and stationery to report patients. The newly introduced TB-HIV registers were distributed to the private practitioners in May and June 2006. Since the inception of quality improvement activities, more than 700 TB patients are being managed in the private sector. In the period January-March 2006 alone, the total number of TB patients diagnosed and treated in the private sector was 696. Of these, 136 tested positive for HIV.

QAP also assisted the Government of Lesotho in preparing proposals for the Global Fund for AIDS, Tuberculosis and Malaria (GFATM). The GFATM sent a report to the Government to inform them about their poor performance in 2004 on the utilization of funds. QAP participated in the development of response to GFATM together with the Country Coordinating Mechanism of Lesotho. The NTP requested QAP assistance in writing a proposal to gain access to drug purchases through the Global Drug Facility (GDF). The proposal was finally approved in January 2006. The Government of Lesotho will now have access to purchase drugs at a much cheaper cost than currently and also will start using the four fixed-dose combination drugs. A one-day training workshop for 55 healthcare workers, including pharmacists, was held in April 2006 to inform them about the new drugs, dosages, and drug distribution. QAP will work together with the Rational Pharmaceutical Management Plus Project to assist the Lesotho Government to prepare for the introduction of the new drugs.

Directions for FY07

During the next project year, QAP will continue to provide support to the MOHSW on TB and TB-HIV policy issues. QAP staff will also assist the NTP and HIV/AIDS Directorate in the expansion of TB-HIV coordinated activities in the country. A greater emphasis will be put on strengthening facility and district-level monitoring of TB and TB-HIV programs. Facilities will be expected to monitor TB cohorts for outcomes and treatment efficacy.

2.4 Niger

Background

QAP has been working in Niger since the founding of the Tahoua Quality Assurance Project in 1993. The Niger QAP program has grown substantially in both technical breadth and geographic coverage over the past five years to include a PHI collaborative and an EONC collaborative, operating respectively in 73% and 62% of Niger's first referral health centers. The PHI and EONC collaboratives reinforce a maternal-newborn-child health continuum in shared sites in a country with some of the highest maternal (700/100,000), newborn (44/1000), and early childhood (276/1000) mortality rates in the world. QAP's sustained presence in Niger has fostered strong MOH institutional QA capacity at national and regional levels over the last decade, which has proven essential for the effective expansion of the Niger QAP program.

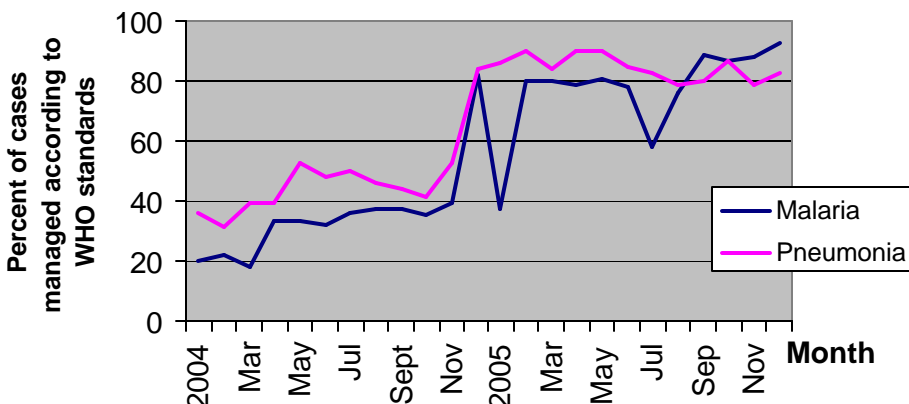
Activities and Results by Major Program Area

Pediatric Hospital Improvement Collaborative

Officially launched in 2003 in 17 first referral hospitals, the PHI collaborative expanded in March 2005 to include 32 district, regional, and national hospitals for coverage of 73% of Niger's first referral centers. From the outset, the PHI collaborative has been implemented in close collaboration with the national program for integrated management of childhood illness (IMCI) with the explicit goal of improving IMCI first referral care for children with serious illness or malnutrition according to WHO guidelines. In Niger—one of the first African countries to implement WHO's IMCI program at the ambulatory level in 1993—the PHI collaborative has proven an essential venue for strengthening first-referral IMCI care for the 10-20% of acutely ill children presenting to the ambulatory level who will require higher level care. Prior to the PHI collaborative, the district hospital level had been largely neglected in the Niger healthcare system.

Key gains of the PHI collaborative to date have included improved care of pediatric pneumonia, malaria, and diarrheal disease as well as the introduction of Emergency Triage Assessment and Treatment (ETAT), almost non-existent in Nigerien facilities prior to implementation of the PHI collaborative. Proportion of cases managed according to WHO standards for malaria and pneumonia in PHI facilities has on average improved significantly from January 2004 to December 2005 (see Figure 1).

Figure 1. Niger: Proportion of Malaria and Pneumonia Cases Managed According to Standards, 14 PHI sites Jan 04-Dec 05 (Avg. # monthly cases analyzed per illness = 163)

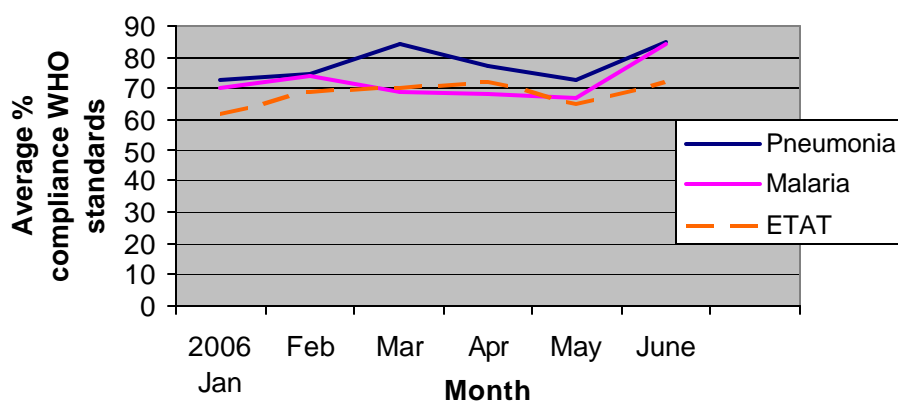


In early 2006 the PHI monitoring framework and tools were simplified to facilitate measurement of continuous improvement in compliance with WHO case management standards, in addition to average proportion of cases treated according to standards (an all or nothing measure). A strong investment was made in strengthening monitoring of the PHI

collaborative including the identification and training of on-site “internal coaches” among existent site health personnel, to help local PHI teams to collect and analyze monthly data as part of continuous quality improvement. Results to date for malaria case management calculated using the new monitoring tools are demonstrated in Figure 2 (final data for all 32 sites for all diseases and ETAT to be included in the Year Five Self Evaluation report). Initial compliance with malaria case management standards in 2003 was less than 15%, and as can be seen in Figure 2 below, is now above 70%.

Given the challenges of operating the PHI collaborative at scale in a vast Sahelian country, the PHI collaborative has been partially decentralized to the regional level with learning sessions conducted at the regional level and regional teams of trained veteran Phase I “external coaches” and internal “on-site coaches” providing essential support at the regional level, with close technical support by QAP staff. Three additional technical staff have been hired with new funding from the

Figure 2. Niger: Average % Compliance with Pneumonia, Malaria, ETAT Case Management Standards, 15 PHI Sites, Jan-June 06 (avg. monthly cases analyzed per illness= 54)



Office of Foreign Disaster Assistance (see below), effectively doubling Niger QAP staff and allowing for the placement of two regional QAP coordinators, essential for effective functioning of the PHI and EONC collaboratives at scale. Pediatric illnesses (malaria, diarrheal illness, and pneumonia) are targeted according to the high prevalence seasons, with veteran Phase I PHI sites helping to mentor less experienced Phase II sites in improving care for targeted illnesses. Tools, training materials, and improvement objectives continue to be shared among all regions, and an annual conference disseminates key lessons learned among all regions and serves as a forum for participatory, annual strategic planning. Regional MOH authorities (*Direction Regionale de la Santé Publique*) have emerged as essential

champions for the PHI collaborative, and increasingly all QAP PHI collaborative activities are being integrated into regional MOH administrative and supervisory structures to promote sustainability of collaborative goals and achievements.

In 2006, the Office of U.S. Foreign Disaster Assistance (OFDA) awarded a grant to URC's non-profit affiliate, the Center for Human Services, to rapidly expand improved care and emergency recuperation of moderately to severely malnourished children as part of the PHI collaborative in the aftermath of the 2005 Nigerien food crisis. Traditionally there has been little to no local health system capacity for the care and recuperation of moderately to severely malnourished children, with the majority of relief care being provided outside of the local health system. The OFDA grant has funded the PHI collaborative to expand improved care and recuperation of malnourished children in 15 of 32 PHI sites, a pressing need given the association of malnutrition with 50% of early childhood mortality and the chronic nature of food crises in Niger. An agreement has just been signed with UNICEF to extend recuperation services and improved care of malnourished children to an additional six PHI sites as part of the PHI collaborative, for total coverage of 21 out of 32 PHI sites. Tools and training materials developed in 2006 for improved prevention and care of malnutrition will be disseminated to all 32 PHI sites during the upcoming year.

Additionally, a behavior change communication activity has been integrated into the expanded PHI collaborative malnutrition work, including the development of an integrated set of provider job aids and counseling posters for caretakers to promote prevention of malnutrition through age-appropriate complementary feeding practices and to reduce rates of relapse after discharge. The infant and young child feeding materials developed by QAP in Tanzania have been adapted to the Nigerien context for this purpose.

Essential Obstetric and Newborn Care Collaborative

On average a Nigerien woman faces a 1 in 7 risk of dying from pregnancy complications over the course of her lifetime. For every maternal complication and death, there is an even higher proportion of newborn deaths and morbidity. Important contributions to Niger's elevated maternal and newborn death rates include extreme poverty, poor access to skilled care, and poor quality of existent services. Newborn survival is integrally related to the quality of maternal pregnancy and delivery care, but in practice the newborn is often ignored after a skilled delivery with little to no post-partum monitoring or care. Proven low-cost interventions can have a dramatic impact on maternal and newborn survival.¹ The challenge now is to implement known best maternal and newborn practices at scale in high mortality settings like Niger.

Leveraging the accumulated experience of the QAP Latin American EOC collaborative and the existent PHI infrastructure, QAP launched an Essential Obstetric Newborn Care collaborative in Niger in 2006 to improve quality of maternal and newborn care in Nigerien facilities and to advocate for adoption of a national newborn health policy that reflects evidence-based best newborn practices. At a policy level in Niger, the recently created *Direction de la Santé de la Reproduction* (DSR) oversees all maternal and newborn health activities and standards, which were last updated in 2002 (*Politiques-Normes et Procedures*). In January, the EONC collaborative was launched in 28 of the 32 PHI first-referral sites. Current EONC sites include 21 out of 33 district hospitals, four out of five regional maternity hospitals, and all three national maternity hospitals, in seven of Niger's eight administrative regions.

EONC collaborative activities in the first half of 2006 have focused on the planning and effective launch of this new collaborative at scale. A national expert meeting was convened in December 2005 to introduce the EONC collaborative at national and regional levels and was attended by national MOH DSR authorities, leading obstetricians, and midwifery experts. EONC collaborative goals defined at the expert meeting were then introduced at regional PHI/EONC learning sessions in January and May/June

¹ Darmstadt, G.I. et al, Evidence-based, cost-effective interventions: how many lives of newborn babies can we save? *Lancet* 2005; 365 977-88. <http://www.thelancet.com/journals/lancet/article/PIIS0140673605710886/fulltext>

2006, including collection and review of baseline maternal newborn health statistics by EONC sites. In light of the broad technical breadth of the EONC collaborative, it was decided in consultation with the EONC expert group to roll out the collaborative as a series of phased cycles, each cycle building on the previous one. Table 1 reviews the technical content of the planned EONC collaborative cycles.

Table 1. Niger: Technical Content of EONC Collaborative Cycles

	Phase I (<i>current</i>)	Phase II
Cycle I (Approx. 12- 15 months)	Active management of the third stage of labor Immediate and essential newborn care (thermal protection, eye care, early and exclusive breastfeeding, BCG/oral polio virus, umbilical care). Client satisfaction	Focused ANC (birth preparation and risk factor identification, IPT and malaria treatment, tetanus vaccination) Infection prevention I (handwashing, instrument decontamination) Quality partograph utilization
Cycle II (Approx. 15 –18 months)	Improved management of obstetric complications (eclampsia, sepsis, hemorrhage) Improved management of newborn complications (asphyxia, sepsis, +/- management of low-birth weight newborn) Infection prevention II (waste disposal, high level sterilization)	

Detailed standards for each cycle I improvement objective were elaborated in the first quarter of 2006 and were formally approved at a March 2006 meeting of the collaborative's expert advisory group. Monitoring tools for cycle I improvement objectives have now been finalized. At regional learning sessions in June 2006, with regional MOH authorities in attendance, EONC site teams brainstormed ways to introduce systematic AMTSL, including the availability of oxytocin and an effective cold chain. Individual EONC site teams agreed on action plans for the subsequent quarter to be reinforced during coaching and shared with all regional sites at the next learning session in September 2006.

A baseline EONC baseline survey was planned and carried out in 15 future EONC sites in April 2006. Goals for the baseline survey were to identify critical gaps in maternal and newborn service delivery and to guide ongoing EONC program planning and monitoring. Final analysis of the baseline survey is currently pending, but preliminary results demonstrate the pressing need to improve quality of maternal and newborn health services in Nigerien facilities.

Obstacles for implementation of the EONC collaborative at scale in Niger include an absence of quality and training facilities and limited number of trained providers, scarce inputs for prevention and management of obstetric and newborn complications (e.g., oxytocin, cold chain capacity, neonatal resuscitation equipment, etc.), and very poor quality of medical records. Implementation of a focused training strategy will be a top priority for the collaborative in the months ahead. Training will be conducted in two large regional maternity hospitals in the west and eastern extremes of the country (Niamey and Zinder) using regional experts and pre-service midwifery, pediatric, and obstetric trainers, and will be followed up with on-site coaching to reinforce skills in the real-life settings in which providers work. Provider job aids for introduction of essential newborn care and AMTSL have been finalized and distributed, and a training manual is currently being prepared using existent reference materials. Minor adaptations of medical records (especially partographs) are being introduced to enable monitoring of collaborative interventions, employing specially made "stamps" that can be introduced into existent records to capture key elements of improvement objectives (e.g., newborn care, AMTSL). A behavior change communication component for promotion of early and exclusive breastfeeding (currently < 1%) is being integrated into the EONC collaborative through a series of counseling posters.

An important advantage for the Niger EONC collaborative is the extensive PHI infrastructure that can now be rapidly mobilized for EONC goals. The EONC management structure will replicate that of PHI. Separate EONC QI teams have been formed in the shared PHI/EONC sites, and PHI and EONC QI teams will meet on a monthly basis in all participating facilities to share lessons learned and to reinforce a maternal, newborn, and child care continuum at the local facility level. Like the PHI collaborative, the EONC collaborative will continue to work closely with MOH authorities and key stakeholders and partners such as UNFPA, UNICEF, the World Health Organization (WHO), and EngenderHealth, which recently began work on EOC in Niger. The national IMCI program's recent expansion to include integrated management of newborn and childhood illness (IMNCI) will allow for close ongoing collaboration with both QAP EONC and PHI collaboratives in Niger. Given the historic neglect of the newborn at local and policy levels, the Niger EONC collaborative will actively advocate for adoption of a national newborn policy by the MOH DSR, thereby seeking to improve both practice on the ground and critical support for such improved practice at national policy levels.

Operations Research

QAP began an operations research (OR) study in Niger in January 2005 to evaluate the effectiveness of the PHI collaborative for improving malaria and pneumonia case management in district hospitals. During the past year, training in pediatric malaria and pneumonia case management was provided to the PHI intervention and training-only groups. Final data collection will be carried out in the second quarter of Year Five. (See section 3.1 for further discussion.)

Directions for FY07

In the upcoming year, the Niger QAP program will continue to reinforce improved ETAT, malaria, and pneumonia care at scale and expand the PHI collaborative's emphasis on malnutrition. The recently launched EONC collaborative will be rolled out throughout the country. QAP will also support advocacy for adoption of a national newborn health policy. The ongoing operations research to assess the effectiveness of the PHI collaborative for improving case management of malaria and pneumonia will be completed. The Niger QAP program will also seek opportunities to reinforce an improved continuum of local district-level maternal newborn and child care in collaboration with MOH, the national IMNCI program, and other key stakeholders (UNICEF, WHO, and others).

2.5 Rwanda

Background

QAP has been operating in Rwanda with field support since 1998. In 2002, the MOH requested that QAP provide technical support to national programs for HIV/AIDS and malaria. In FY2005, QAP received President's Emergency Plan for AIDS Relief (PEPFAR) funding for two activities in Rwanda: to continue the PMTCT/VCT improvement collaborative (initiated in 16 sites in 2003) in 37 sites located in all 12 provinces of Rwanda and to continue implementation of an ART improvement collaborative started in 16 sites in 2004. The work of both collaboratives is coordinated closely with the MOH Directorate of Healthcare and the Treatment Research on AIDS Center (TRAC), and the two collaboratives use a subset of TRAC's monitoring indicators. QAP continued to support a pediatric malaria care improvement collaborative with the DSS and the National Malaria Control Program (PNLP), using core funds. During the year, QAP also continued to provide technical support to the DSS Division for the Promotion of Quality Services (DPQS) to strengthen its capacity to conduct quality improvement activities, including collaboratives. The Ministry of Health also requested assistance from QAP in Year Four to assist with the development of a formal national policy on quality assurance. Two PEPFAR-funded demonstration activities (community-based case management for HIV/AIDS and protecting maternal and child health activities in the context of HIV/AIDS programming) initiated in Year Three were completed. USAID/Rwanda advised QAP that FY2006 would be the final year for field support.

Activities and Results by Major Program Area

PMTCT Collaborative

With the addition of 21 new sites to the collaborative at the end of Year Three, a key challenge for the PMTCT collaborative in Year Four was to integrate new teams into the improvement activities already well underway in the original sites. Two joint learning sessions were held for the 16 old sites and 21 new sites during the year: the 6th learning session for the old sites (1st learning session for the new sites) was held as three district level meetings in late August and early September 2005. The 7th learning session for the old sites (2nd learning session for the new sites) was held as a series of three district level meetings in March and April 2006. In preparation for the first joint learning session, QAP staff collected an exhaustive list of the improvement changes implemented at the facility level in the original sites. During the August learning session, the old sites were guided through a process in which they identified the best practices of the first phase of the collaborative, based on their positive impact on improvement goals (see examples provided in Table 2). Simultaneously, new sites learned from old sites during this exercise, as they were able to clarify details directly with old sites as they planned to implement changes in their own sites.

Table 2. Rwanda: Best Practices for Increasing Partner Testing in PMTCT

Type of Change	How Implemented
Quality Information, education, and communication (IEC)	<ul style="list-style-type: none"> • IEC to women on importance of partner testing • Emphasize issue of discordant HIV test results in a couple during IEC
Reorganization of services	<ul style="list-style-type: none"> • Home visits to sensitize partners • Reorganization of reception (priority testing given to partners, availability of weekend testing) • Add partner code on liaison form to identify women whose partners have not yet tested in order to reinforce sensitization • Purchase of treated mosquito nets by partners (Muhura, Kabgayi sites only) • Offer partner testing in the community by health staff • Require partners to obtain the prenatal card of prenatal women (opportunity for sensitization on partner testing)
Community sensitization	<ul style="list-style-type: none"> • Sensitization of partners by community health promoters • Participation of a health center agent at community meetings (opportunity to talk about importance of HIV testing) • Meeting and sensitization of men/partners after <i>umuganda</i> (community work) • Hold brainstorming meeting with women to get ideas on how to get men to get tested
Deliver written invitations to partners	<ul style="list-style-type: none"> • Invitation letter delivered with women in prenatal care • Invitation to partners to accompany the woman at least once during prenatal care (especially the first visit)

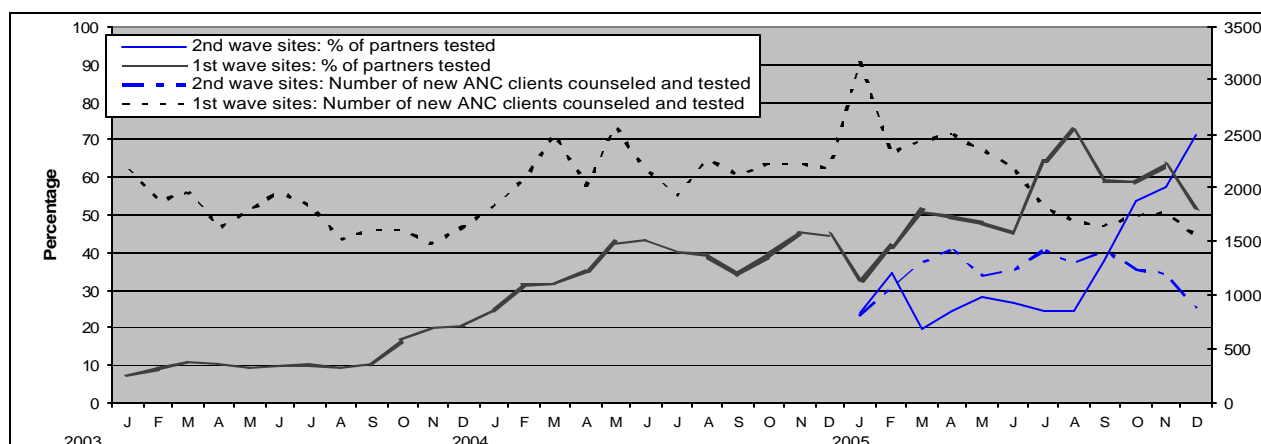
To support teams in data entry and sharing, QAP launched in July 2005 a web-based, password-protected extranet page for the Rwanda PMTCT collaborative that allows teams in the collaborative to enter monitoring data that can be displayed graphically and also viewed by other teams. The web pages, in French, also allow teams to enter short reports on improvement activities. Facility teams required a lot of hands-on support to use the extranet, since computer literacy was relatively low. QAP staff also assisted

teams to enter data collected prior to the launch of the extranet. About 75% of teams have at least some data entered on the extranet.

To provide stronger support for new teams in the PMTCT and other collaboratives, in September 2005 QAP staff organized a national “training of trainers” in quality assurance methods and in providing coaching support to teams participating in improvement collaboratives. The coaches trained were district supervisors and facility staff who had distinguished themselves from the original sites of the PMTCT and malaria collaboratives. These individuals were asked to provide coaching for the new sites in the extension phase of the PMTCT collaborative.

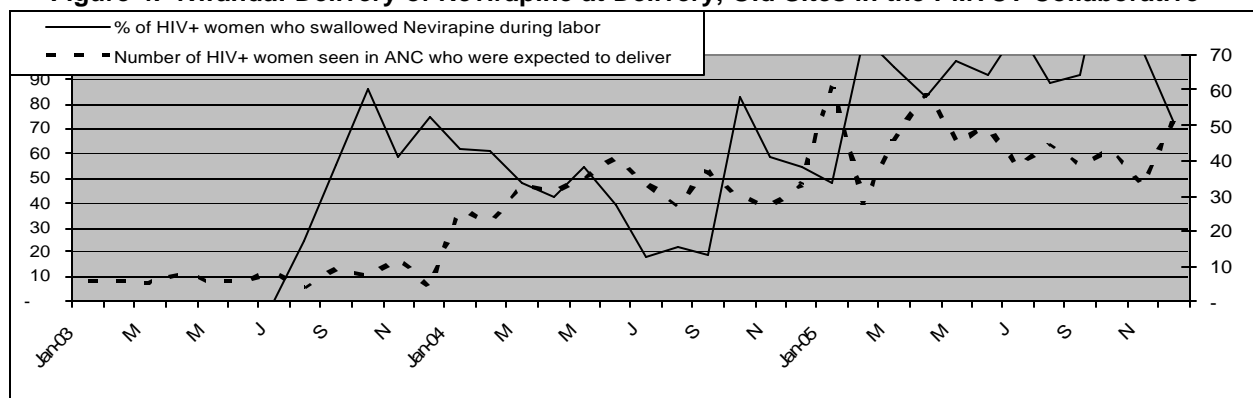
The PMTCT improvement collaborative made progress in the past year in spreading successful changes adopted in the initial sites to the expansion sites. Figure 3 shows the results of team efforts to increase the percentage of partners of those women coming to facilities for prenatal care who were tested for HIV. Data are disaggregated by “wave” of the collaborative; data in black represent the original teams who started in the collaborative in 2003, while data in blue are for the second group of teams who joined the collaborative at the end of 2004.

Figure 3. Rwanda: Partner Testing of ANC Clients, Old and New Sites in the PMTCT Collaborative



Another area of continued emphasis in the PMTCT collaborative was delivery of Nevirapine to all HIV-positive pregnant women and follow-up of children born to these women. Previously, facilities only gave Nevirapine to women who delivered at the facility. In 2005, sites began giving Nevirapine to all HIV-positive women seen in prenatal care and counseled women who would deliver at home to take the Nevirapine at the onset of labor. Figure 4 shows the increase achieved in the proportion of HIV-positive women who took Nevirapine during the labor (data only for the first wave of teams).

Figure 4. Rwanda: Delivery of Nevirapine at Delivery, Old Sites in the PMTCT Collaborative



Antiretroviral Therapy Collaborative

The 4th learning session of the collaborative was held in September 2005 after much site-level coaching, especially in the areas of data collection, indicator calculation, and graphing of results, which have been a major challenge for teams in the ART collaborative. During 2005, some sites dropped out of the collaborative, reducing the number of participating ART sites to 15. Another challenge for this collaborative has been the high turnover among staff between facility departments as well as between sites, creating the need to bring new team members up to date on topics covered in previous coaching and learning sessions. By the 5th learning session in February 2006, most sites had reached the objectives they had set in the previous learning session and as a result, increased their improvement target. For the indicator “Percentage of patients that adhere to ARV treatment,” the target was increased from 90% to 95% during the 4th learning session and from 95% to 100% during the 5th learning session. Figure 5 shows data from 13 sites on percentage of patients at 95% adherence (note that seven of these sites only began data reporting in August 2006). Similarly, for the indicator “Percentage of patients lost to follow-up,” the target of <5% was redefined at <2% during the 5th learning session. Figure 6 shows results from Gihundwe health center with respect to improving patient monitoring.

Collaborative teams have received coaching on how to improve the quality of counseling by reinforcing the importance of adherence to ARV medications, signs of ARV toxicity and secondary effects, and the objectives for each appointment, as well as on strategies for patient follow-up, including instituting an adherence register, holding monthly sessions with groups of patients on ARVs, and linking with community groups to provide local support to PLWHA.

Teams achieved more limited improvement with respect to achieving an increase in CD4 counts and increase in weight among patients who have been on ART for 12 months or more. Teams noted that they were only able to ensure adherence and provide counseling on nutrition, which only indirectly increase both weight and CD4 count.

Figure 5. Rwanda: Percentage of Patients on ART with 95% Adherence, 13 Sites

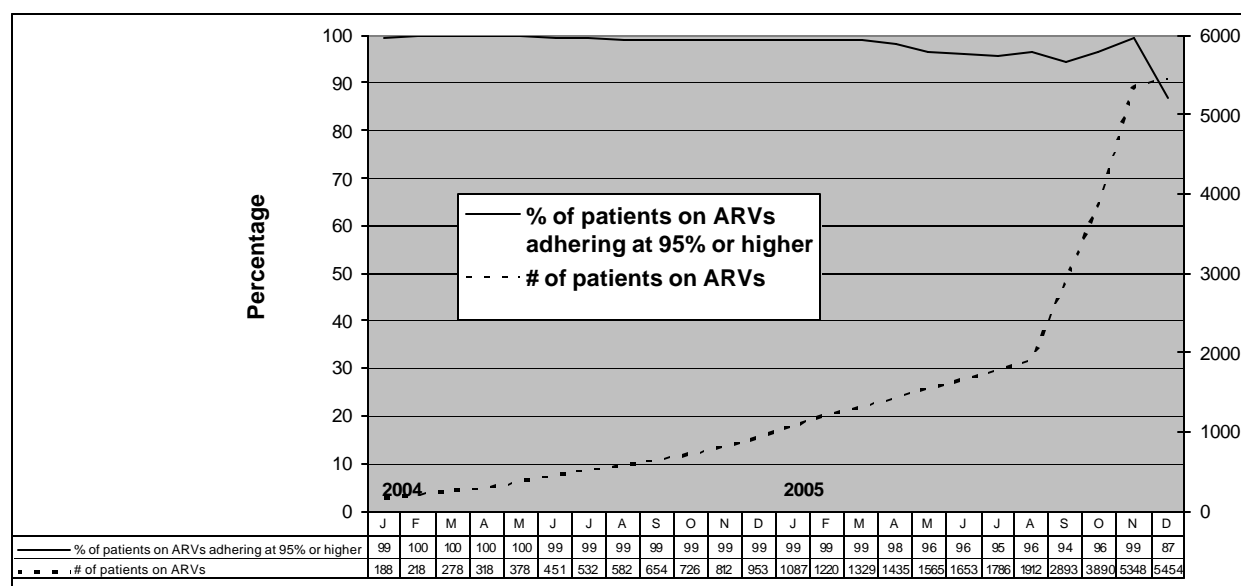
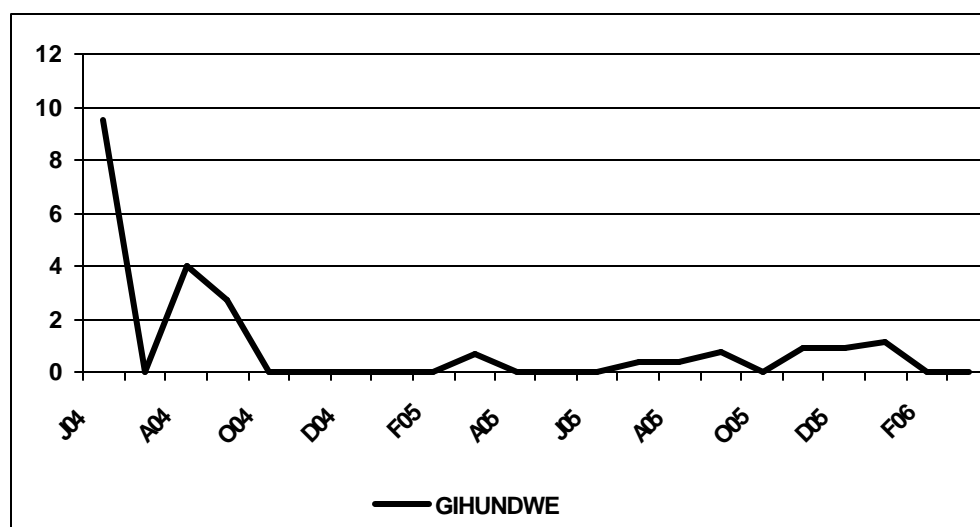


Figure 6. Rwanda: Percentage of ART Patients Lost to Follow - up at Gihundwe Health Center



Malaria Collaborative

The malaria collaborative was initiated in 2003 by QAP, the MOH Directorate of Healthcare, and the National Malaria Control Program (PNLP). The goal of this collaborative is to improve performance of malaria case management among children aged 0-5 years in four districts, one each in four of Rwanda's 12 provinces. The 5th learning session was held in two sessions in May and June 2005, each covering two districts. Given the encouraging results by that point, QAP and the MOH decided to extend the collaborative to 31 new sites in the same four districts in the West, North, East, and Kigali provinces. Thus, during the 5th learning session, best practices were identified in preparation for the extension phase, and local coaches were identified, trained, and tutored on how to provide technical and moral support to the new extension phase sites to help them improve their performance.

In preparation for the 6th learning session, PNL, supported by QAP, trained providers at the new sites in basic QA techniques and the collaborative approach. Thus, during the 6th learning session, which was conducted in 4 separate sessions in April and May 2006, new and old sites from each district met together to exchange their experiences.

Support to the Ministry of Health Division for the Promotion of Quality Care

In October 2005, at the request of the Ministry of Health in Rwanda, QAP assisted in the development of a National Quality Assurance (QA) Policy. A team of QAP and MOH staff (Dr. Lynne Miller Franco; Dr. Bonaventure Nzeyimana, the head of DPQS; Dr. Apolline Uwayitu, QAP Country Director; and Dr. Maina Boucar, QAP Africa Director) held a series of quality assurance stakeholder meetings to understand current MOH QA work and to assess needs for national QA policy. A draft policy was developed, presented at a workshop, and a final version of the National QA Policy was submitted to the Ministry of Health. In addition, two key documents were prepared: the National Quality Assurance Program, presenting details in strategic directions in QA planning, objectives and results, and the Strategic Plan for Quality Assurance, presenting a five-year action plan and budget.

In January 2006, the Ministry of Health requested that QAP assist in the integration of Quality Assurance and Performance-Based Financing into a single integrated national policy. Dr. Franco, Dr. Nzeyimana, and Dr. Uwayitu led working sessions with representatives from the performance-based financing unit of the Ministry of Health and members of the Belgian Cooperation to create a new version of the integrated

policy, which was then distributed to MOH staff and partner projects involved with performance-based financing, mutual health organizations, and quality assurance.

The following two documents are now being finalized by the MOH: *National Policy on Quality of Healthcare in Rwanda* and *National Program for Quality Management of Healthcare in Rwanda*.

Community-Based Case Management Demonstration Project

This demonstration of community-based case management of persons living with HIV/AIDS (PLWHA) sought to adapt to Rwanda the case management function that has been so important in AIDS care in the U.S. QAP provided support through September 2005 to three NGOs that served over 1500 PLWHA with the help of volunteers, providing home visits, case management, community health insurance, Opportunistic Infection (OI) treatment, and nutritional support. They also provided HIV services in the community. Volunteers supported by the Society for Women and AIDS in Africa (SWAA) provided community IEC with HIV prevention and treatment messages to over 4500 men and women. The Salvation Army provided VCT to 307 people, of whom 34 were found to be HIV-positive.

Improving and Protecting Maternal and Child Health Services in the Context of Increased HIV Treatment Funding

In September 2004, QAP began a demonstration activity to develop strategies to enhance maternal and child health (MCH) in facilities focused on HIV/AIDS services. Due to QAP staff turnover, the five MCH demonstration sites did not receive sufficient follow-up during the first year of the demonstration. QAP then decided to fold the MCH work into the PMTCT collaborative and thus share the local coaching structure of that collaborative. Thus, during the 6th PMTCT learning session (1st learning session for the second wave of PMTCT sites) in September 2005, all PMTCT sites were sensitized on the MCH work, and they were asked to retrospectively collect baseline data starting from January 2005 for the MCH indicators.

During the learning session in March 2006, almost all PMTCT sites reported their MCH data. It was found, however, that data for prenatal care utilization rate indicators had been collected incorrectly. Changes that the teams agreed to put into place starting in April 2006 are: community sensitization during meetings with local authorities and during the monthly community work days (*umuganda*) on the importance of coming to prenatal care early; putting in place a register for women who have been oriented to family planning services; including a family planning agent in the quality improvement team, improving reception of family planning clients; making available the HIV-positive client register; offering family planning during full office hours, rather than for a half-day; and informing maternity staff to orient women who come to deliver to the family planning services available.

During the 3rd and final learning session in June 2006, teams recommended improvement of the data collection tool and giving appointments for the subsequent visit to women during each prenatal care visit. Some sites are offering free ultrasounds or pregnancy tests to women who come to their first standard prenatal visit during their first trimester of pregnancy.

Operations Research

Assessing Stigma in Health Providers and Its Impact on Quality of Care

This study is currently in the analysis phase.

Ensuring Patient Adherence to Antiretroviral Therapy

This study is currently in the analysis phase.

Human Resources Assessment for Scaling up HIV/AIDS Care, Treatment, and Support

The final report of this study was presented to the Ministry of Health in July 2005. The individual phase reports were edited and published separately by QAP. A summary report drawing together the key findings from all three phase reports was drafted by Initiatives and is now undergoing further editing by QAP.

Directions for FY07

All field and PEPFAR-supported activities in Rwanda will be completed by August 2006. A final conference for the teams of the PMTCT and ART collaboratives will be held in August 2006. Core funds will support continuation of the malaria collaborative through September 2006 and, together with PNLDP, possibly expand the number of districts and sites included. QAP is preparing a small proposal to the MOH for the use of GFATM or other technical cooperation funds to support expanding the malaria collaborative to eight new districts where the MOH has previously carried out QA training.

2.6 South Africa

Background

QAP has worked since 2000 in South Africa, where interventions have demonstrated results in improving treatment outcomes in several key health areas (TB, maternal, and peri-natal health). Based on these improvements in the initial province (Mpumalanga), the program has gradually expanded to cover five priority provinces: the Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, and North West. In each province, QAP works in close partnership with Provincial Department of Health (PDOH) staff as well as with district staff, community health workers, and private service health providers.

Since October 2004, QAP has had the role of testing interventions to improve various PEPFAR-funded treatment and care interventions. As part of this mandate, QAP is working closely with the National Health Department (NDOH), provincial health departments, and local service area levels to ensure that a continuum of quality health services for people living with HIV and AIDS is available at both health facility and community levels. QAP and the PDOH are also helping facilities integrate health services to better identify patient needs and reduce missed opportunities. In addition, systems and processes are being developed at community and facility levels to ensure that HIV patients are screened for TB and other opportunistic infections and receive appropriate care and treatment. QAP has helped NDOH develop simple job aids and algorithms to improve provider compliance with national protocols and guidelines.

QAP is also helping the PDOH in the five focus provinces and other stakeholders to develop systems and procedures that facility and community-based healthcare workers can use to undertake regular assessments to identify gaps in HIV and AIDS case management and improve follow-up of these clients. One such strategy has been the implementation of monthly chart audits at facilities, where the charts of clients in the PMTCT and ART programs are audited for compliance with national guidelines. Within this context, any identifiable shortcomings are noted, quality improvements plans developed, and appropriate action taken, in conjunction with the whole team. Additionally, QAP has been helping the DOH and other service delivery organizations develop effective strategies to increase patient adherence with HIV and AIDS treatment regimens. To this end, QAP has initiated and improved dialogue between facilities providing ART and home-based care organizations, in order to ensure continued follow-up and care of these patients. Healthcare facilities are also receiving support to improve infection prevention and control with the aim of reducing transmission of blood-borne pathogens. Boxes 1 and 2 provide examples of the kind of facility level assistance QAP's team provides in South Africa.

The U.S. Government has informed QAP that to get credit for "direct contribution," its staff must have considerable contact with the facility staff providing a specific HIV/AIDS service. Beginning in July 2005, QAP significantly reduced the number of facilities being given technical support in each province to those that could be visited at least twice a month by a QAP field-based staff member. During Year

Four, QAP supported a total of 38 facilities in the Eastern Cape in the Alfred Nzo and Chris Hani districts and the Nelson Mandela Metropolitan area. In KwaZulu-Natal, QAP supported 10 facilities in Uthungulu district. In Limpopo Province, QAP supported 11 facilities in the Greater Sekhukhune and Bohlabela districts, while in Mpumalanga, QAP provided technical assistance to 33 facilities in the Gert Sibande, Ehlanzeni, and Nkangala districts. QAP began re-introducing the quality improvement program in Bophherima district of North West Province, with the appointment of a provincial coordinator in April 2006.

Activities and Results by Major Program Area

Counseling and Testing

During the past year, QAP has worked with provincial and district DOH staff to put systems in place to increase the availability of high quality counseling and testing (C&T) services. To this end, technical assistance has focused on: 1) improving availability of C&T within individual facilities, thereby increasing access to these services; 2) monitoring compliance with national guidelines and standards by healthcare providers; 3) integrating C&T services into the scope of primary healthcare activities; 4) provision of support for national and provincial C&T initiatives; 5) identification of quality gaps in C&T and improving the quality of pre- and post-test counseling; 6) ensuring early referrals for ARV assessments; and 7) ensuring quality of counseling and testing in TB-HIV services. The aims are to improve provider performance to generate client satisfaction and increase access and demand for quality counseling and testing services. As of June 2006, QAP had worked with 92 service outlets that served 58,851 clients with counseling and testing services, exceeding targets.

PMTCT

QAP has been working with the provincial health offices and assisting staff in targeted facilities to improve compliance with guidelines aimed at preventing mother-to-child HIV transmission, including counseling and testing for pregnant women, ARV prophylaxis for HIV-infected pregnant women and newborns, counseling and

Box 1. Facility Results in South Africa: Barberton Hospital in Mpumalanga Province

Barberton Hospital is a small district hospital situated in the Ehlanzeni district in Mpumalanga province, serving a community of approximately 64,000 people. Mrs. Agness Mdawe, the URC QAP provincial coordinator, has been working with the Barberton Hospital quality assurance team since 2003, in collaboration with the PDOH district QA Coordinator. As a result of QA training and coaching during monthly quality assurance meetings and quality improvement interventions, facility staff have stepped up their efforts to promote HIV testing and to integrate counseling and testing and ART services with maternal and child health, primary healthcare, tuberculosis care, and home-based care services.

They have also improved in their follow-up of HIV-infected clients with clinical staging and CD4 counts. However, as the hospital was not accredited to provide ART, those clients requiring ART had to be referred to Rob Ferreira Hospital, 45 km away. This was very trying both for clients, most of whom could not afford to travel so far for monthly refills of their medication, and staff, who felt frustrated and helpless in this situation. However, buoyed by ongoing support from QAP, staff at Barberton Hospital continued to improve their care for HIV-infected individuals and began renovating rooms and garages for an ART site. On November 17th 2005, their efforts were rewarded with the accreditation of Barberton Hospital as an ART site.

Hospital staff has also improved in screening for and treatment of opportunistic infections, including TB, amongst People Living with HIV/AIDS (PLWHA). The number of patients screened for opportunistic infections has increased from zero in October 2005 to 75 in March 2006. At the same time, screening of HIV-infected clients for TB has increased from zero to 38 and screening of TB patients for HIV has improved from zero to 41. The quality of care provided to HIV-TB co-infected patients has also improved significantly, with an increase in the provision of opportunistic infection prophylaxis from zero in the last quarter of 2005 to 24 clients at the end of March 2006. In addition, the number of adult clients on ART has increased rapidly from 34 in November 2005 to 143 in March 2006. In order to improve adherence, all these clients are linked to treatment supporters and are receiving ongoing counseling and nutritional support.

support for maternal nutrition, and safe infant-feeding practices. QAP is promoting a continuum of care model to ensure that pregnant women receive a high quality of care from pregnancy to post-delivery. Between July 2005 and June 2006, QAP staff assisted 86 facilities providing the complete package of PMTCT care to 26,193 HIV-positive women.

HIV-TB

HIV-TB co-infection is a major problem in South Africa. Most HIV patients are co-infected with TB, and TB is a major cause of mortality among HIV-infected persons. QAP is working with provincial health offices to improve operational policies and guidelines so that cross-referrals between HIV and TB facilities/centers are increased. At the facility level, QAP is working to ensure that HIV-positive patients are screened for TB and that TB patients are referred for C&T. Job aids have been developed for both providers and caregivers to ensure early detection of TB and other opportunistic infections. Several important gains have been made in the area of HIV-TB with regard to the quality of services provided by facility staff, particularly in facilities with the Eastern Cape. As of April 2006, QAP staff had worked with 88 facilities that referred 13,016 TB patients for HIV testing and provided TB treatment to 7,298 co-infected patients.

Basic Care and Support

QAP is providing support to district health offices in designing strategies to improve the basic healthcare and support for PLWHA. The basic healthcare package includes early detection and treatment of opportunistic infections (e.g., TB, pneumonia), home-based treatment of diarrhea, prophylaxis, nutritional support systems, and palliative care. QAP efforts this year have focused on improving healthcare provider knowledge and skills and improving patient records to enable appropriate follow-up care. In addition, QAP has started developing partnerships with local non-governmental organizations (NGOs) and community- and faith-based organizations to further expand access to quality services for PLWHA. Thus far, QAP has provided small grants and mentoring to home-based care organizations in two provinces, Bambisanani in the Eastern

Box 2. Facility Results in South Africa: Driefontein Health Center in Mpumalanga Province

Driefontein Health Center is situated in the Gert Sibande district, within Mpumalanga province, serving a community of approximately 50,000 people. Within the province, the HIV sero-prevalence rate amongst pregnant women is 30.8%, indicating a dire need for improvement and strengthening of the PMTCT program. Through the leadership of Mrs. Maria Fakude, the provincial QAP Coordinator, in collaboration with the DOH QA Coordinator, the quality of the PMTCT program has improved significantly. By promoting counseling and testing for HIV for all pregnant women at their first antenatal visit, the HIV testing rate has improved from 23% to 78% in the period October 2005 through March 2006. In addition, the emphasis on compliance with guidelines for facility staff has led to an increase in the administration of Nevirapine to all HIV-infected pregnant women and their babies from 151 to 207 in the first two quarters of 2006, a 25% increase. According to data collected from registers and from patient record audits, all babies born to HIV-infected mothers are now receiving Nevirapine prophylaxis at the health center.

In line with the national PMTCT guidelines, facility staff has been educated about the need to perform clinical staging and CD4 counts on all HIV-infected pregnant women and to refer for ART when appropriate. Through ongoing support and mentoring, the compliance with clinical staging of HIV infected pregnant women has increased from zero at the end of 2005 to 67% in the 2nd quarter of 2006. CD4 count testing has increased from 33% to 100% in the same time period. Facility staff has also been educated about the need to provide opportunistic infection prophylaxis to all HIV-exposed babies at six weeks and to inform mothers about PCR testing of their babies. The initiation of this service has shown some improvement from 8 to 28 infants in the first two quarters of 2006.

During a recent assessment of the value added by QAP, the Driefontein Health Center manager said, "Through the monthly support visits QAP has provided guidance, information, and training on national guidelines. This has resulted in improved record keeping, improved compliance with national guidelines, improved management and care of mothers and children and better insight into the care of HIV/AIDS clients and the correlation between TB and HIV. QAP has also influenced improvement in all programs at the facility such as chronic care, family planning and minor ailments."

Cape and Phaphamani in Mpumalanga, that provide home-based care, including assistance to PLWHA and their caregivers to better adhere with treatment regimens. Their outreach workers visit PLWHA to ensure that they are receiving appropriate care and support and make referrals for TB screening and social services. The two NGOs have begun expanding basic healthcare at drop-in centers and strengthening their community-based care and support programs and community mobilization for counseling and testing.

Between July 2005 and June 2006, 72 facilities were supported, serving 93,663 PLWHA with counseling on nutrition and other issues and screening 12,808 HIV-positive patients for opportunistic infections.

Antiretroviral Treatment Services

QAP is helping NDOH, local health departments, and other stakeholders to operationalize national protocols on ARV treatment and implement a continuum of care model that ensures that HIV patients on ARV treatment receive optimal quality of care at any service delivery level (treatment site or follow-up care site). By aiding individual facilities to utilize patient records and information systems to ensure that each patient receives quality care, QAP has supported the accreditation of eight additional facilities that are now providing ART, care, and support. Assistance has also been provided to develop linkages with community-based organizations to provide support for patient adherence. From July 2005 to April 2006, QAP staff had assisted 26 ART service outlets providing 16,000 patients with ART, well ahead of planned targets.

Within this period, QAP, in collaboration with the NDOH, also commissioned a rapid assessment of South Africa's national ART program. Approximately ten facilities were covered by the study. The assessment revealed progress in procurement procedures and storage practices in pharmacies, implementation of innovative patient tracking systems, improvements in referral systems and understanding of governmental care and treatment protocols, and increasing engagement with civic movements. Gaps were identified in the areas of staff recruitment, information access and sharing, and financial accountability and control. Data collection, synthesis, and application also remain weak, due either to a lack of capacity or lack of appropriate technology. An important finding was the need for immediate action to strengthen the ART program through cost-effective, quality-focused interventions that address the needs of both providers and patients.

In response to these findings, QAP, in collaboration with the New York AIDS Institute and the National Quality Institute, provided quality improvement training specific to ART programs for a total of 52 participants, from all provinces in South Africa.

Support to the NDOH

Since January 2006, QAP has been supporting the QA working group of the NDOH and leading revisions of the Clinic Supervisors Manual. The revised manual uses the QA approach to strengthening supervision of facilities. This is being done in collaboration with other USG partners, as well as our DOH counterparts within Gauteng and the Eastern Cape. The completed piece of work was presented to the NDOH in May 2006.

Operations Research

QAP staff participated in a rapid retrospective assessment of the sustainability of QAP interventions, by assessing several facilities in Mpumalanga and KwaZulu-Natal that had previously received QAP support for quality improvement activities not related to HIV/AIDS. This assessment revealed that despite the withdrawal of QAP support to these facilities, QA improvements were still taking place, with maintenance of the previous interventions. The final report, entitled "Sustaining Improvements in Neonatal Care – a South Africa Case Study," was written in February 2006. A similar assessment was conducted in May to evaluate the sustainability of quality improvement initiatives within the TB program.

The preliminary results of this assessment will be available in July 2006. As requested by USAID, rapid assessments of all QAP-supported facilities were conducted in April and May 2006, with the use of a semi-structured interview. The survey results will be available in July 2006.

Directions for FY07

The QAP South Africa program is in the process of negotiating with provincial and district authorities in the five priority provinces to provide sessional medical staff to support the provision of care and treatment to HIV-infected individuals at QAP-supported facilities, specifically those where specific human resource shortages have been identified. The objective is to create best practices that could be emulated by DOH staff in other areas in each province. In addition, QAP teams will continue to integrate clinical care programs within healthcare facilities.

Furthermore, an assessment of the quality of counseling and testing in the five priority provinces, utilizing UNAIDS tools, is planned within the next twelve months. This assessment will serve the National Chief Directorate of HIV and AIDS by assessing the needs of counselors, counselor satisfaction, counseling skills and knowledge, and client satisfaction.

There will be ongoing support of national quality assurance initiatives, with the development of regular “sustainability audits.” A small portion of records will be audited (20 to 30 patient records will be drawn randomly for each service: basic healthcare, PMTCT, etc.) each quarter, for up to three facilities per district. In addition, observations of a number of provider-client interactions and exit interviews will be conducted quarterly in these sampled facilities. QAP will also support annual compliance surveys to be carried out by an independent local agency in each province to assess the levels of compliance with national standards and guidelines.

2.7 Swaziland

Background

The Regional AIDS Office in Southern Africa asked QAP in April 2005 to assist with an assessment of TB-HIV co-infection in Swaziland, which is among the top five countries worldwide with the highest TB incidence rates and the highest per capita burden of both TB and HIV. In June 2005, QAP, in collaboration with the Ministry of Health and Social Welfare (MOHSW), WHO/AFRO, and the Centers for Disease Control and Prevention Global AIDS Program, conducted a rapid assessment of TB and HIV control and care activities in Swaziland. Based on the assessment findings, QAP developed a program of technical assistance to support the MOHSW in developing policies and integrated TB-HIV service delivery models and algorithms for health facilities and providers.

Activities and Results

The program interventions are focusing on the Manzini region, but gradually will be rolled out to other areas. Manzini reports about a third of all TB cases in Swaziland. The project will support 12 facilities: three hospitals and nine clinics. The Swazi program was slow to start due to the difficulty of recruiting a full-time coordinator. Due to lack of local qualified staff, the Regional AIDS Program allowed QAP to open up the recruitment to other African nationals. Dr. Samson Haumba was recruited through an extensive search and relocated to Swaziland in April 2006.

During the year, through visits by South Africa-based staff, QAP worked with the MOHSW to restructure and staff the National Tuberculosis Control Program (NTCP). QAP, along with WHO, assisted NTCP in finalizing the draft guidelines and policies for the TB and TB-HIV. These were completed in June 2006. QAP is also helping NTCP with the following activities: (a) develop a strategy to improve access to and quality of laboratory (microscopy) services; (b) establish and support joint TB-HIV working committees at central and regional levels to improve access to counseling and testing among TB patients and to strengthen diagnosis, treatment and follow-up of HIV patients with TB co-infection; and, (c) develop

consensus on transport, nutrition, and other social support services for TB and TB-HIV patients. QAP also provided technical support to NTCP on preparing a response to GFATM about issues related to management of resources. Finally, QAP led a three-day workshop for the NTCP staff in May 2006 focused on monitoring quality and outcomes in the TB program, including the use of the new electronic TB registers. Over 50 participants attended the training.

Directions for FY07

QAP is assisting the NTCP in finalizing its monitoring and evaluation strategy for TB and TB-HIV coordinated activities. QAP will assist the program to report on key TB and TB-HIV indicators to demonstrate changes in program performance. NTCP plans to roll out electronic TB registers to all regions over the next 12 months. We will also introduce simple tools at facility levels to promote referrals of co-infected people as well as for putting these individuals on ARV treatment.

2.8 Tanzania

Background

In 2003, QAP began providing support to the Ministry of Health of Tanzania and the Regional Health Office in Dar es Salaam for the implementation of an improvement collaborative focused on infection prevention that involved three district hospitals in the Dar es Salaam Region. That same year, as part of a joint formative research activity with a team at Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Kilimanjaro, QAP developed and tested an integrated set of job aids for use in counseling women about HIV and infant feeding in the context of HIV. In June 2004, QAP received PEPFAR funding to: 1) implement an improvement collaborative on pediatric HIV/AIDS care and support involving seven referral level health facilities, and 2) initiate production and dissemination of the integrated job aids and support training to introduce the materials in PMTCT programs in five of the country's 22 regions, including training of national and regional trainers and infant feeding counselors and whole site training of managers and providers in contact with mothers and children. For FY2005, QAP received USAID/Tanzania funding to continue a family planning improvement collaborative in nine facilities in the Dar es Salaam Region that had been initiated in Year Three with core funding. In March 2006, Dr. Raz Stevenson left QAP to join the USAID Mission staff and was replaced by Dr. Festus M. Kalokola as QAP Country Director.

Activities and Results by Major Program Area

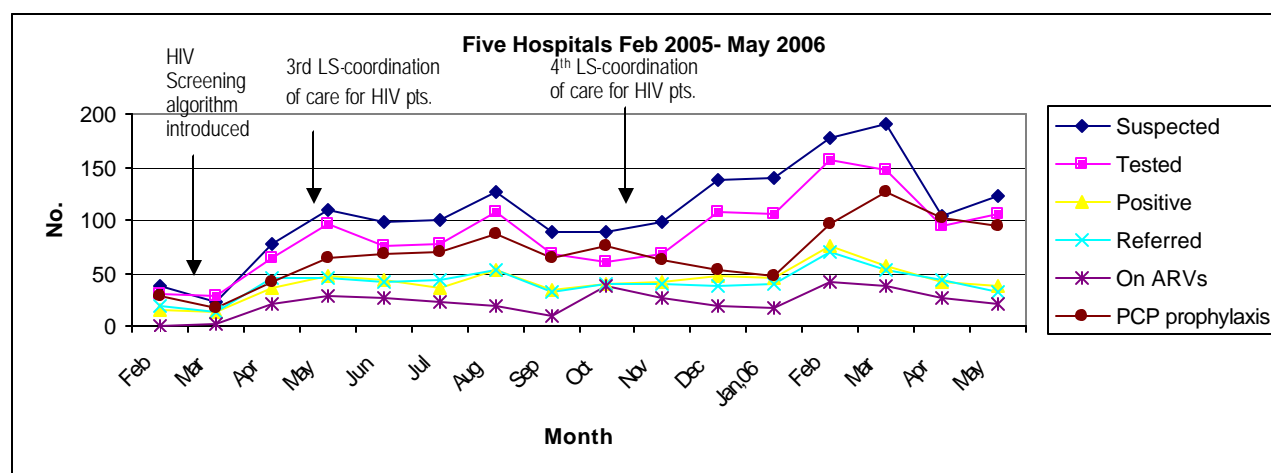
Pediatric Hospital Care Improvement and AIDS Treatment Collaborative

The Tanzania pediatric HIV/AIDS care and support improvement collaborative focuses on treatment and support for children with AIDS, an area where QAP has used core support to adapt its tools for improvement of hospital care for severely ill and malnourished children to the special needs of children infected with HIV/AIDS. In the first year of activities, the collaborative introduced in the seven participating hospitals explicit procedures for screening children suspected of HIV infection, referring them for testing and care and initiating cotrimoxazole prophylaxis. Data collected by five of the hospitals (the other two hospitals participated in learning sessions but did not report data) showed improvements in the proportion of suspected pediatric HIV infections that were tested and referred for antiretroviral treatment.

Results from the initial five hospitals are shown in Figure 7. Improvement in coordination of care between the pediatric services, the PMTCT secretariat, and the HIV Care and Treatment Program under the National AIDS Control Program has not, however, resulted in significant improvement in reaching the number of children targeted to receive ART. So far only 10% of patients receiving ART are children below 17 years, compared to a national target of 20%. Until May 2006, a total of 1720 children were suspected to be HIV-infected; among these, 1395 were tested, 663 were found to be HIV-positive and

referred to counseling and treatment centers (CTCs) where 355 received ART. These data do not include patients referred from outpatient departments (OPDs). The collaborative will now begin training OPD staff in the use of the HIV screening algorithm. At the facility level, some work has been done by liaising with internal clients at the CTC in trying to form networks between teams of health providers managing patients with HIV/AIDS. In the next action period, teams will be encouraged to place more efforts on strengthening linkages between the OPD, inpatient PMTCT activities, Counseling and Treatment Center, and the community. The collaborative will use the experience gained in the initial sites to scale up successful changes and strategies in new sites.

Figure 7. Tanzania: Pediatric AIDS Care Improvement in Five Hospitals



Based on positive results in the initial facilities, the Ministry of Health decided in late 2005 that the collaborative should be scaled up to new hospitals in the Northern zone of the country. The first learning session for the teams in the Northern zone took place in December 2005. The Ministry of Health is funding the participation of 15 new hospitals in three northern regions in the collaborative (see Table 3).

Table 3. Tanzania: Expansion of PHI/Pediatric AIDS Collaborative

Region	Participating Hospitals
Dar es Salaam	<i>Temeke, Tumbi, Amana , Mwananyamala, Muhimbili National Hospital</i>
Kilimanjaro	<i>KCMC</i>
Arusha	Mt Meru Regional Hospital, Mondoli Hospital, Seliani Lutheran Hospital, Arumeru District Hospital, Kaloleni Health Centre, Ngarenaro Health Centre
Morogoro	<i>Morogoro Regional Hospital</i>
Tanga	Muheza Designated District Hospital, Pangani Hospital, Korogwe Hospital, Tanga City Hospital, Bombo Hospital, Lushoto District Hospital, Handeni Hospital, Ngamiani Health Centre
Manyara	Hanang Hospital

*Original sites shown in italic.

At their first learning session, the new sites were introduced to quality improvement and the collaborative methodology, the Referral Care Manual (RCM), system flow chart analysis, and the health facility baseline assessment tool. During the first action period, teams implemented the designated infrastructure changes to accommodate the new patient flow pattern and received training in ETAT. In April 2006, at the fifth learning session of the demonstration phase of the collaborative, participants from the Northern zone participated to learn about challenges, failures, and success stories from the initial sites. The new sites, which had completed their baseline facility assessments, adopted the tools from the demonstration sites and developed plans for reorganizing their processes of care for pediatric patients. Table 4 summarizes the activities carried out by the collaborative in the original and expansion sites during Year Four.

Table 4. Tanzania: PHI Collaborative Activities, May 2005–April 2006

Activity	Length	Dates	Accomplishments
3 rd Action Period	5 months	May-Nov. 2005	<ul style="list-style-type: none"> Teams continued to implement ETAT, improve coordination of care, and collect data on numbers of HIV exposed/ positive patients who have been tested, use prophylaxis and referred to care and treatment teams Adapted the Malawi version of the Critical Care Pathways (CCPs) and the self-assessment tool to monitor compliance with standards Assisted the MOH IMCI unit to introduce the PHI collaborative in 12 hospitals in the Northern Zone (6 hospitals in Tanga and 6 hospitals in Arusha Regions) Conducted rapid system analysis to identify gaps in services and opportunities for improvement
4 th Learning Session (LS)	4 days	Nov. 2005	<ul style="list-style-type: none"> Teams from all participating sites presented progress made on the work plans and shared results, lessons learned, and challenges Introduced the WHO generic RCM to the participants with special emphasis on improved case management of HIV/AIDS, pneumonia and malaria Introduced critical care pathways (CCPs) and the self-assessment tool for monitoring compliance with standards Conducted a one-day refresher course in ETAT
1 st LS for Northern zone teams		Dec. 2005	<ul style="list-style-type: none"> Introduction to QI and collaborative methodology, RCM and baseline health facility assessment tool, and redesigned a new patient flow
1 st Action Period for Northern Zone teams	3 months	Jan.- March 2006	<ul style="list-style-type: none"> Teams conducted their baseline facility assessments Trained in ETAT Implemented the Infrastructure changes to facilitate the new patient flow pattern
4 th Action Period	4 months	Dec. 2005- March 2006	<ul style="list-style-type: none"> Continued to consolidate the results achieved during the last action period Purchased and distributed to all sites: clipboards for improving documentation and communication of clinical essential information at bedside, glucometers, CCPs, the compliance monitoring tool, and the monthly reporting forms Produced and distributed chart booklets, and simple wall charts on the management of HIV/AIDS, malaria, and pneumonia
5 th LS for old sites and 2 nd LS for Northern zone teams	3 days	April 2006	<ul style="list-style-type: none"> Re-emphasized QI methodologies and re-examined QAP implementation strategies in the context of Tanzania QI Framework Strategized on scaling up QI to involve lower-level health facilities and the community, with a focus on improving the numbers of children on ART for the old sites and introducing the HIV screening algorithm to the new sites
5 th Action Period for old sites and 2 nd Action Period for new sites	2 months	May 2006	<ul style="list-style-type: none"> Continued to consolidate the results achieved during the last action period, especially improving and monitoring availability of equipment and supplies using the standard checklist in ETAT areas Organizing regular meetings involving service sites of HIV/AIDS patient care and treatment at health facility level and community level Continue to monitor compliance with case management guidelines using the adapted CCPs Continue to collect data on HIV indicators in the health facilities and surrounding communities
1 st Action period for Northern zone teams	3 months	May 2006	<ul style="list-style-type: none"> Start implementing ETAT, introducing CCPs and checklists for equipment, drugs and supplies, and collecting data to monitor improvement Organizing regular meetings involving service sites of HIV/AIDS patient care and treatment at health facility level and community level

Since the 5th learning session, the original facilities have recorded significant improvements in health infrastructure, systems of care, and outcomes. Most children are now triaged, and those with emergencies are treated quickly. More children suspected of having HIV infection are being tested and put on cotrimoxazole prophylaxis, and HIV-positive ones directed to receive ART. The new facilities have improved ETAT in general and are beginning to focus on improving case management. An important achievement in Year Four has been the assimilation and institutionalization of the collaborative's activities within the MOH, which is spearheading the collaborative's expansion.

Implementation of Integrated HIV and Infant Feeding Job Aids

The set of integrated infant feeding counseling materials that were developed and accepted by national stakeholders in Year Three were produced in March 2005. Between 50,000 and 250,000 copies of each brochure and 10,000 copies of the Q&A booklet and counseling cards were produced in KiSwahili. Training on infant feeding in the context of HIV and the effective use of the job aids was conducted in three regions of the country.

In Year Four, QAP received PEPFAR funds to support training to introduce the materials in PMTCT programs in up to five additional regions. QAP's strategy for scale-up of the training seeks to develop a facility-wide response to improve and promote key practices in infant feeding through use of the integrated set of counseling job aids. We also printed 285,000 copies of each of two new brochures (maternal nutrition and feeding after 6 months); these are now beginning to be distributed to sites.

A cadre of national trainers was developed, using the 10-day training curricula based on the national adaptation of the WHO/UNICEF Breastfeeding Management Course and HIV and Infant Feeding Course. These trainers were prepared for leading whole site training at the facility level. To accomplish the introduction of the job aids into service delivery, a whole facility training curricula using the job aids was developed for three categories of health providers: (1) infant feeding counselors, who receive intensive (four-day) infant feeding training; (2) all staff (including physicians, assistant medical officers, nurses, and aides) caring for pregnant women, mothers and infants, who receive a one-day orientation in the use of the materials; and (3) facility decision makers who are trained to implement health system changes in one three-hour session.

Before QAP began this work, there were fewer than 20 national trainers on infant feeding, and very little training on infant feeding in the context of HIV had taken place over the last several years. As shown in Table 5, we have created a core group of Tanzanian trainers who have in turn trained hundreds of their colleagues and co-workers in over 400 facilities. We have made available more than 1 million print materials for use in PMTCT services, ANC, and post-natal units.

Table 5. Tanzania: Training of Trainers and Transfer Training of Infant Feeding Counselors, May 2005–May 2006

Region	Trainers	Infant Feeding Counselors
Morogoro	16	60
Tanga	16	60
Kilimanjaro	16	150
Kagera	12	23
Dar es Salaam	50	197
TOTAL	110	490

Family Planning Improvement Collaborative

The Tanzania family planning (FP) improvement collaborative was initiated in October 2004 in partnership with the Reproductive and Child Health Services (RCHS) of the Dar es Salaam Regional Medical Office, with participation of nine sites in the Dar es Salaam Region. The main objectives of the collaborative are to provide information on FP and HIV information to all RCH clients at facilities, improve privacy, counseling, and screening for medical eligibility for clients of FP services, improve method mix, and reduce stock-outs of contraceptive methods. In Year Four, USAID Mission field support was provided to scale up the family planning improvement collaborative to new facilities in the region and continue strengthening the quality of family planning (FP) services in the original nine facilities. Plans to extend the collaborative to 36 new sites were scaled back to add only six sites, based on the funding available. Table 6 summarizes the key activities of the collaborative during Year Four.

Table 6. Tanzania: Summary of Family Planning Collaborative Activities, July 2005-May 2006

Activity	Dates	Accomplishments
Scale up assessment	July -August 2005	Facility assessment for scale up of FP collaborative conducted in 36 urban, peri-urban, and rural facilities
DHMT sensitization meeting	September 2005	22 District Health Management Team members from the three Dar municipalities were sensitized to the aims of the collaborative
Field testing of All methods FP Brochure	September 2005	The All methods FP brochure was field tested with 18 focus group discussions conducted with community members, community leaders, and service providers
Update training for FP Trainers	October 2005	11 FP trainers and preceptors were updated on WHO medical eligibility criteria and training methodology, creating a core team of updated trainers to conduct FP training in Dar Region
Stakeholders meeting	November 2005	Stakeholders reviewed the field test results of the All methods brochure and recommended reformulating and field testing adolescent images
LS 4 (LS 1 for new sites) and training in FP Module 1	November 2005	The collaborative approach was introduced to six new sites; results of the scale-up assessment were shared; 37 service providers from 15 sites were oriented on concept of clinic organization, quality improvement, and collaborative methodology; performance gaps were identified and work plans developed for Action Period 4
FP training Module 2&3	December 2005	31 service providers gained skills on providing health education, counseling high risk clients and counseling for informed choice
FP training Module 4	January 2006	18 service providers gained knowledge on counseling and provision of short term FP methods (natural, barrier and hormonal)
Field testing new adolescent images	January 2006	Two focus group discussions were conducted with 11 female and 10 male youths aged 15-24 to test images on abstinence as a dual protection FP method
LS 5 (LS 2 for new sites)	March 2006	48 service providers from the 15 teams reviewed site performance and were oriented on concepts of quality improvement (team work, role of teams, flow charts, leading QI team meetings); site visits were made to observe QI implementation
Action period 5/2	April-June 2006	Site mentoring and data cleaning completed; final report written; preparations were made for the 6 th and final learning session

In collaboration with the MOH/RCHS, QAP trained a team of 11 trainers in October 2005 in the recently updated National Comprehensive Family Planning Clinical Skills Curriculum. These trainers in turn trained 91 service providers from 15 facilities in organizing FP and RCH services, providing FP and other health education, counseling for FP and RCH health services, and providing natural, barrier, oral, and

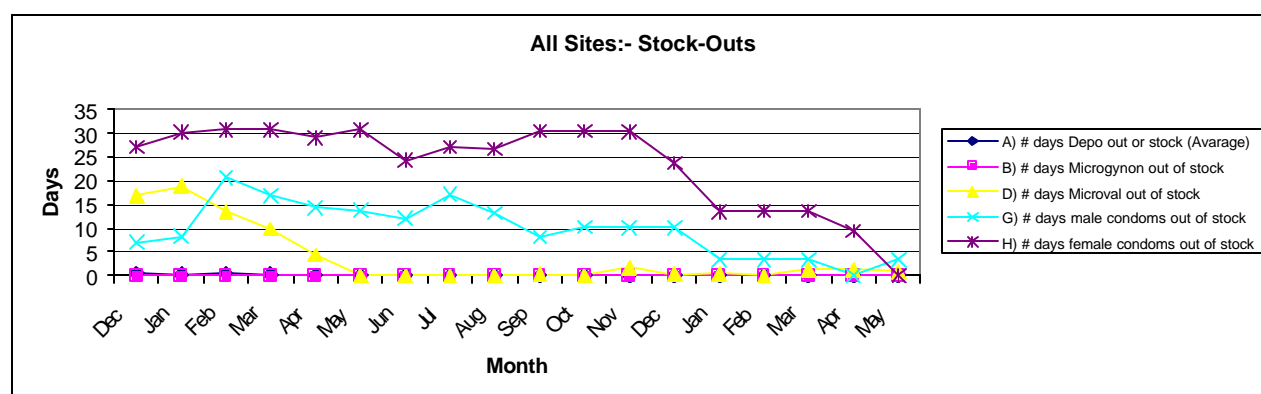
injectable FP methods using the national curriculum modules 1- 4. Additionally, providers were oriented in the basics of HIV transmission and protection so that they could confidently counsel clients and encourage them to seek VCT services.

A significant amount of time was spent in system strengthening, and notable improvements were achieved in improving privacy (audio and / or visual) in all nine original sites by the end of 2005. After providers received family planning training, the percentage of clients who were counseled and screened according to WHO Medical Eligibility Criteria increased from the baseline of 65% to 84-90%.

QAP staff conducted on-site coaching visits to the facility-based improvement teams to support them in making changes in their service delivery processes. At the March 2006 learning session, all 15 sites came together to share successes and challenges in implementation of the changes and to develop work plans for the coming quarter.

Thirteen of the 15 facilities managed to install shelves to house and organize client cards to improve storage and retrieval of client information during the first and follow up visits. There has also been significant improvement in data collection, analysis, and use in monitoring quality improvement changes. QI teams were trained to use data collected in daily FP registration and stock consumption books to correctly apply in the Report and Request supplies book. This has enabled facilities to reduce stock-outs and improve method mix (see Figure 8).

Figure 8. Tanzania: Reduction in Average Number of Days Experiencing Stock-outs, All 15 Family Planning Collaborative Sites



To reduce missed opportunities for promoting the uptake of FP methods, service providers in all RCH related services were sensitized to refer potential clients to the FP services for counseling and method provision. The All methods FP brochure developed in partnership with the MOH and other FP partners was field tested in September 2005 at the original nine sites. Facilities participating in the collaborative introduced a group health talk to strengthen the knowledge of RCH clients regarding FP and HIV transmission prevention and related services. It was hypothesized that increased knowledge of the benefits of birth spacing for mothers and infants would increase uptake of FP methods. Referral patterns of clients within the service were tracked in order to measure success in networking within the facility. However, these efforts have not resulted in significant increase in FP service utilization.

Directions for FY07

The Pediatric AIDS/PHI collaborative will continue in the 22 sites, and QAP will provide assistance to the MOH to spread the initiative to new facilities in the southern regions of Tanzania. Teams will also be supported in monitoring improvement changes in case management for other leading pediatric illnesses and continue to develop capacity within the facilities to collect and use reliable data for improving the quality of pediatric health services. In the coming year, the collaborative is expected to shift its emphasis

towards increased networking with all points of contact with infants and children infected with HIV and facilitate and monitor linkages with community-based groups providing care to children living with HIV/AIDS. QAP is working out modalities of mapping out community-based activities in areas where we are already working and developing strategies for linking community-based activities of care to health facilities.

The MOH has expressed interest in adopting the HIV and infant feeding materials as national materials. QAP expects to develop additional materials (e.g., posters, flip charts) and strengthen linkages and networks in facilities (i.e., with pediatric hospital improvement, maternal and newborn care, PMTCT, and referral systems) for infant feeding counseling and with community breastfeeding groups.

The final learning session of the family planning collaborative will be held in July 2006. During this session the QI activities will be handled over to the Regional and District Health Management Teams. Teams will be facilitated to examine the progress made and remaining quality improvement gaps and develop work plans to address the existing gaps.

2.9 Uganda

Background

In 2004, with support from the Global Fund and other developmental partners, the Ministry of Health of Uganda launched a comprehensive HIV treatment scale-up and ART expansion program, with the aim of ensuring universal access to ART. The number of sites providing ART in Uganda has risen rapidly in the past two years, from 26 sites in July 2004 to 170 sites as of July 2006. This rapid scale-up has highlighted the need for a quality assurance activity, especially in the areas of care and support of HIV-positive patients, monitoring and follow-up of patients on ART, and treatment adherence to minimize treatment failure and the development of drug resistance. Towards this end, the Ministry of Health requested support from QAP to strengthen and institutionalize quality assurance within its ART expansion program, to ensure that services provided to adults and children with HIV/AIDS are high quality and meet clients' expectations. Planning for this technical assistance program began with a QAP-USAID/Washington team visit in April 2005. With PEPFAR funding, QAP and the MOH planned an ART improvement collaborative which would be implemented at national scale in all 11 regions of Uganda, encompassing 51 districts and 57 health facilities.

Activities and Results

Quality of Care Initiative in HIV/AIDS

Following final negotiations between QAP represented by Stephen Kinoti, Senior Quality Assurance Advisor, and the MOH's Director General of Health, Professor Francis Omaswa, in May 2005, QAP's long-term advisor in Rwanda, Rachel Jean-Baptiste, relocated to Uganda in July 2005 to provide technical support for the HIV/AIDS antiretroviral treatment, care and support improvement collaborative. The collaborative, which aims to improve quality of HIV/AIDS care for both adults and children, operates under the aegis of a National HIV/AIDS Quality of Care (QoC) Initiative that is directed by the Ministry of Health. The MOH's goal is to ensure quality ART services in the whole country within a rapidly expanding ART program. For this reason the quality improvement collaborative is being implemented in nearly all of the 57 districts of Uganda. The collaborative is utilizing the existing service structures of the MOH to facilitate sustainability as the program develops.

A national Steering Committee was formed in October 2005 to provide strategic direction to all QoC activities. The committee is made up of membership from several MOH departments, including the AIDS Control Program, the Department of Integrated Curative Services, the Quality Assurance Department, as well as the Regional Center for Quality in Healthcare, USAID, WHO, and QAP. The Steering Committee approved QAP's proposed workplan for the collaborative. QAP then formed a core

technical team of advisors in quality that would build capacity and supervise regional teams that would in turn direct activities of the collaborative in the 11 regions. The core technical team is composed of technical staff from the MOH, the private sector, other HIV/AIDS providers, as well as QAP/Uganda staff. In November 2005, QAP provided training in the improvement collaborative approach to members of the core team. The core team developed 27 improvement objectives with 33 quality indicators for the collaborative, covering five priority categories: patient assessment and screening, treatment with highly active antiretroviral therapy, prevention of opportunistic infections (OI), referral and follow-up, and health facility preparedness. The core team then conducted a training in the aims and methods of the collaborative for 11 regional coordination teams (48 persons in all). Healthcare facilities providing ART were selected by the regional and core teams to participate in the first phase of the collaborative using criteria developed by the Steering Committee. In each region, one site per district was selected in order to try to represent the following mix of facilities: one regional hospital, one district hospital, one NGO hospital, one health center IV, and one additional site. In all, 57 sites were selected from 51 districts in 11 regions, including 25 district hospitals, 8 NGO hospitals, 13 health centers IV, and 11 regional hospitals.

The first learning session of the collaborative was held in January 2006 as four sets of sessions that included sites from three regions, or approximately 15 sites each. The objectives of this first learning session were to: review Uganda's strategies, activities, achievements and challenges in the fight against HIV/AIDS, including PMTCT, VCT, ART and community programs and initiatives; review activities, lessons learned, and challenges in providing care and support PLWHA within health facilities; introduce the Quality of Care Initiative and the collaborative quality improvement approach in healthcare delivery facilities; introduce various quality improvement concepts and tools; and develop an action plan for immediate implementation. The training was led by core and regional teams, who provided training to site teams in QI methods, including tools for performing systems analysis (flowcharting) and conducting baseline assessments. Sites teams were guided to select at least one indicator from each of the five categories that represented an area of key interest to them for baseline data collection, analysis, and improvement. All sites were instructed to also work on improving patient adherence to ARVs.

QAP developed procedures and guidelines for coaching visits, including terms of references for coaches and tools to help teams establish and function. QAP provided training in these tools for members of the core and regional teams who would coach the site teams. The first round of coaching visits by members of the regional technical teams and members of the core team was carried out in February 2006, during the first action period. During this time, site teams collected and analyzed their baseline data and finalized flowchart analyses of their current system of ART service delivery for discussion at the second learning session. Generally teams performed well in completion of flowcharts, analysis of care processes, and the identification of delays and gaps in quality of care. Additional support was provided during the coaching visit in the definition of indicators, use of national HIV registers, and collection of baseline data.

The second round of learning sessions was carried out in April 2006. The agenda for this learning session was designed to address identified gaps and overall problems noted from site visits during the first action period. Specific objectives of this learning session were to: review the ART Policy of the Ministry of Health, including policies of initiation of ARVs and cotrimoxazole prophylaxis; review the progress of quality of care activities at sites, particularly baseline data collection and analysis, and address issues that affect activities at various ART sites; discuss the challenges that sites faced during the 1st action period; review and demonstrate the use of existing patient registers, medical records (HIV/ART Cards), and documentation tools; discuss issues related to medication stock management and prevention of stock-outs; review adherence monitoring methods and ways of improving patient adherence to ART; assist participants in developing potential changes to key quality improvement indicators at their sites; and develop an action plan for immediate implementation in the second action period. Some of the common problems noted by teams in their baseline assessments include: poor patient records, weak reporting on referrals, ineffective use of data in the facilities, many periods of drug stock-outs (both ARVs and drugs to treat OI), poor human resources management, high attrition, low motivation, and poor coordination of

services. During this learning session, staff of the DELIVER Project, which provides technical assistance to the MOH National Medical Stores, participated in helping sites understand the system for drug requesting and reporting.

During the second action period, coaches have focused on helping site teams learn the proper use of patient documentation tools, as well as tools for proper ordering and reporting of ARVs and OI drugs. Teams have begun working to improve key programmatic indicators, identifying areas for improvement, testing ways of improving these areas using the CQI model, and tracking improvements through monitoring indicators over time. To date, all sites have shared baseline results with each other and are currently in the process of improving on their baseline by using the Plan-Do-Study-Act cycle. Among improvements accomplished so far are the reorganization of patient flow, improved documentation in patient records, increased number of HIV patients screened for TB, task shifting, and in-house continuing medical education to reinforce knowledge of clinical standards and guidelines.

HIV and Infant Feeding Counseling Materials

In July 2005, QAP, with support from USAID/Uganda initiated the adaptation of the Tanzanian integrated set of HIV and infant feeding job aids, in collaboration with the National PMTCT Program and other national stakeholders participating in the infant and young child feeding (IYCF) and PMTCT IEC/BCC consultative groups (EGPAF/Uganda, AIM, UPHOLD, PSI, PREFA, UNICEF and WHO). QAP's technical assistance was focused on 1) providing guidance for the national adaptation of the updated international guidelines on HIV and infant feeding; 2) a two-week capacity building training for five Ugandan artists (three MOH health communication artists and two private sector artists) in the state-of-the-art graphic design approach used by QAP's BCC team; supporting the graphic adaptation and field testing of the Tanzanian integrated set of materials; and printing a limited number of one or more of the materials produced. All stakeholders participated in a collaborative consensus building process to develop the final technical content for each of the materials. QAP was asked to focus the two-week graphic arts training on the development/adaptation of illustrations for the HIV and Infant feeding Question and Answer Guide, three feeding counseling brochures (breastfeeding, cow's milk and commercial infant formula) and one brochure on expression of breastmilk (in lieu of the expression and heat treatment brochure). Field testing of the initial illustrations was conducted in two distinct regions of the country to confirm their acceptability and end-users' understanding of the images. A local private sector graphic artist was contracted to provide ongoing support for the project.

Following the two-week in-country training component of the project and the completion of the initial set of draft materials in English, QAP supported a larger national-level field test, coordinated and executed by the MOH, based on a protocol developed by QAP's BCC team leader. Final English text and graphic layouts, reflecting the field test results, were developed with support from both the QAP graphic team and the locally training artists. The four brochures were translated into seven local languages. Collaboration in the translation and initial printing of the four brochures was negotiated by the MOH and ultimately supported by several other USAID cooperating agencies. The printing of the Question & Answer Guide is still pending, but is scheduled for August 2006.

Directions for FY07

QAP will report its first year progress to the senior management staff of the Ministry of Health, other relevant USAID partners, and the district and medical directors of participating facilities in a series of meetings to be held between the end of July and the first week of August. In September, the third round of learning sessions will be held at which site teams will share results of their performance during the previous action period. The technical focus in the learning sessions will be on improving patient adherence, the management of pediatric HIV/AIDS, and systematic integration of tuberculosis and family planning services into the HIV clinics. The subsequent action period will be six month, with a tentative date for the 4th learning session of April 2007 and a 5th learning session in December 2007.

USAID/Uganda has requested that all health facilities providing ART be included in the Quality of Care Initiative and has provided FY2007 PEPFAR funding for QAP to assist up to 30 new sites to be selected by the Steering Committee. To prepare for these new sites and potentially up to 200 sites by FY2008, QAP will work in Year Five to strengthen the functionality of regional coordination teams and develop capacity at the district level to support quality improvement activities. The first learning session for the new sites is planned for January 2007, the second learning session in March 2007, and the third in August 2007. All 87 sites (57 old + 30 new) will participate in the learning session to be held in December 2007.

QAP will also provide technical assistance to the Ministry of Health's efforts to develop a stepped-up accreditation system for re-accrediting health facilities providing ART.

Eastern Europe

2.10 Russia

Background

QAP has worked in Russia since 1998, adapting and applying quality improvement methodologies to its healthcare system. Following successful pilot and scale-up of improved systems of care for maternal and child and primary healthcare, QAP supported the Central Public Health Research Institute from 2002-2004 in running five national collaboratives with approximately 24 territories of the Russian Federation.

In the fall of 2003, the USAID Mission in Moscow requested that QAP, along with the American International Health Alliance (AIHA), assume responsibility for the treatment, care, and support part of its HIV/AIDS strategy. QAP and AIHA developed a joint project strategy to maximize the effectiveness of USAID/Moscow resources and combine the strengths of each organization's approach. QAP is using QI methods to design a model comprehensive system of care, treatment, and support for HIV-infected and AIDS patients, including collaborative meetings to give territories an opportunity to share their ideas and experiences. The model is being developed in the oblasts of Samara, Saratov, and Orenburg, and in one district of St. Petersburg City, with a plan for spread throughout these territories and to others. QAP coordinates its work closely with the Federal AIDS Center, which has provided technical support to the teams and participated actively in information-sharing sessions. In Year Four, USAID asked QAP to start a new quality improvement activity on family planning services for PLWHA. QAP is working closely on this activity with the Maternal and Child Health Initiative managed by John Snow Inc. (JSI).

Activities and Results by Major Program Area

Design a Comprehensive System for HIV/AIDS Care, Treatment, and Support

Teams from the four territories are addressing four topic areas through the collaborative: access and retention of patients, coordination of care, clinical management, and TB-HIV co-infection. Following on the first two learning sessions in Year Three, during Year Four, three learning sessions have been held as well as regional and national events to disseminate evidence and best practices related to HIV/AIDS. QAP staff has provided on-site support and coaching to teams in addressing specific operational problems in their sites with respect to these four topics.

In October 2005, QAP conducted a two-day round table in Moscow on coordinating HIV and TB co-infection detection and treatment for members of the inter-disciplinary HIV-TB teams in the project sites. The purpose of the round table was to provide for an exchange of ideas on HIV-TB detection and treatment between the project sites; to receive advice, feedback and answers from experts on the teams' work; to update participants on the current situation in HIV-TB co-infection in Russia, major federal regulations and efforts regarding care delivery to patients with HIV-TB; and to share relevant international experiences and identify best practices to adapt. Leading international and national experts offered presentations on rates of HIV-TB co-infection in Russia, efforts to deliver services, and implementation of federal regulations.

In December 2005, the third learning session was held in St. Petersburg, bringing together representatives from all teams working on improving access to care and patient retention, care coordination, and patient management and adherence from the four project sites to design organizational plans for provision of ART. Each region presented their current situation with respect to ART delivery. Dr. Oleg Yurin, Deputy Head of the Federal AIDS Center, updated participants on MOHSD plans for ART roll-out in 2006-2007. He also served as an expert for the teams advising them on key elements that should constitute such organizational plans. This and other presentations by national and international experts were followed by facilitated Question & Answer sections, in which experts shared their experience and personal vision regarding different issues, such as ART inclusion criteria, strategies to improve adherence, and recruitment of active intravenous drug users (IDUs) into ART. Each of the four multidisciplinary teams agreed on a unified ideal readiness plan, tailored it to their local environments, identified local needs and possible resources, and developed concrete action plans and timelines.

In March 2006, the fourth inter-regional learning session was held in Moscow, focusing on HIV/AIDS and tuberculosis co-infection for representatives of the TB-HIV interdisciplinary teams from the four territories as well as representatives from Kaliningrad, Tomsk, Altai Krai, Chelyabinsk, the Russian Healthcare Foundation, Federal Center for TB care delivery to HIV clients, USAID, American International Health Alliance, WHO, CDC, Open Health Institute, AIDS Foundation East-West, and URC staff from South Africa. Participants exchanged ideas on HIV-TB detection and treatment of HIV clients, which the teams in each project region began testing after the meeting.

The fifth learning session was held in Moscow in June 2006, bringing together 91 participants from the project regions (St. Petersburg; Engels, Saratov Oblast; Togliatti, Samara Oblast; and Orenburg), NGOs of PLWHA, GFATM Round IV recipient regions, Federal AIDS Center, Russian Health Care Foundation, WHO, USAID, AIHA, Open Health Institute and other international organizations. The focus of this session was to review the status of preparedness for ART scale-up, to further elaborate on regional plans utilizing inputs from colleagues and various experts, and to agree on measures to track progress on patients' enrollment into ART. Each region presented on their current situation with respect to ART delivery as well as specified improvements in each project area (access and retention, care coordination, patient management, and HIV/TB co-infection detection and treatment) that had laid the basis for ART scale-up within their territories. Topics discussed at the meeting include: recruitment of active IDUs into ART, substitution therapy for IDUs, treatment of Hepatitis C virus (HCV) co-infection and opportunistic infectious, irregular drug supply, participation of the PLWHA community in decision making at all levels including the development of clinical guidelines, involvement of primary care specialists in ART provision, prevention of professional burn-out, stigma towards PLWHA and a reverse stigma towards the medical community, use of peer-to-peer counselors and better cooperation with NGOs, focus on the process of enrolling eligible patients and forming adherence support groups, rather than waiting for the drugs to come, and indicators for measuring the ART scale-up programs. The meeting also served to further cooperation and synergy between the four participating territories as well as GFATM Round IV recipient regions, medical and PLWHA communities, and international organizations.

Another major technical intervention supported during the year was to improve the quality of HIV counseling and testing. Trainers in all four project territories were trained by the Healthy Russia Foundation, which also provide the training materials. First, regional trainings on counseling led by local trainers in Saratov and St. Petersburg were held during November 2005 through February 2006. For instance, in St. Petersburg, the training was attended by 17 participants, including general practitioners, nurses, infectious disease specialists, midwives, obstetricians, a pediatrician, and a psychologist from various polyclinics and centers. Ten training sessions have been carried out to date in the four project regions, and seven more are planned to be completed by September 2006.

Box 3 provides examples of some of the changes introduced by the teams in the four territories.

Improving Family Planning Information and Services for PLWHA

This new activity was launched in January 2006 as an improvement collaborative aimed at serving the needs of HIV-positive families by improving access to and quality of family planning services for PLWHA. After consulting with authorities in several Oblasts as to interest in participating in this new collaborative, four project sites were identified: Krasnogvardeiski District, St. Petersburg; Saratov City and Balakovo City, Saratov Oblast; and Togliatti, Samara Oblast. The primary participating organizations are maternity houses and women's consultation clinics. Other participating institutions were identified, including polyclinics, social services, drug rehabilitation services, AIDS Centers, center for reproductive health and family planning, and NGOs. QAP will use family planning counseling and training materials produced by the JSI Maternal and Child Health Initiative and draw on results of the recent assessment conducted by JSI on the family planning practices of HIV-infected women in nine regions of the Russian Federation.

For the family planning collaborative, QAP is using the same project roll-out strategy as has been employed for HIV/AIDS Treatment, Care and Support. The first step involves QA training and analysis of the current system of reproductive health services for HIV-positive women. These took place in March in St. Petersburg and Saratov/Balakovo and in June in Togliatti. The first part of the course prepared teams at the facility-level to work with the quality improvement (QI) methodology; the second half of the course was dedicated to interdisciplinary teams reviewing the current systems of family planning services for PLWHA (between facilities and services), and identifying and prioritizing problems. In St. Petersburg, 22 health providers from 14 health institutions from Krasnogvardeiski District took part in the initial training. In Saratov, participants included 28 health providers from 21 health organizations of Saratov and Engels, and 21 providers from nine health institutions took part in the QI training in Togliatti. While the problems identified by the participants varied slightly by regions, they generally included the following: insufficient knowledge of family planning counseling; underdeveloped referral systems; lack of confidentiality; low quality of HIV pre- and post-test counseling; and limited access to healthcare for most at-risk populations.

Following the QI trainings, in June 2006, QAP organized two content trainings for Saratov and Balakovo teams, using trainers trained by JSI. In total, 42 people participated in the content trainings, including nurses, midwives, physicians, and social workers and psychologists from women's consultation clinics, youth consultations, maternity homes, maternity homes, polyclinics and the psycho-neurological dispensary.

The four teams formed have met regularly to work on the problems they have identified. The current issues on the teams' agenda are availability of sterilization services for HIV-infected women; availability of free contraceptives for HIV-infected women; improved access to family planning services and information for youth; and improved referral of women for family planning services among health providers.

Box 3. Russia: Illustrative Results from Site Teams

Engels, Saratov Oblast

- The two teams working on improving patient management and adherence and access and patient retention identified improvement of the existing practice of recruiting patients for ART as a joint priority and developed an ART readiness plan for identifying 1,000 HIV-positive patients in need of ART, wherein a crucial role in recruiting patients for ART is given to primary care providers. All primary care specialists authorized to provide ARVT have been trained and provided with the unified ARVT guidelines. This organizational model developed and tested by Saratov/Engels teams served as the basis for the regional order # 613 issued by the Saratov Oblast MOHSS on organizing ART delivery to patients with HIV throughout the oblast.
- The HIV/TB practice organized and tested by the project HIV/TB team in Engels was evaluated and finalized by the Saratov Oblast officials to serve as a basis for an Order #128 on Improving TB care delivery to HIV clients issued by Saratov Oblast Ministry of Health and Social Support in February 2006. This extends the HIV/TB care delivery model developed by the Saratov/Engels project team to all Oblast municipalities and is a good example of an intentional scale-up initiated by the Oblast authorities. (See Figure 9 for results from Engels screening of HIV-positive patients for TB.)

Togliatti, Samara Oblast:

- Thanks to the Access and Retention team activities and trainings on VCT that led to better counseling, the City of Togliatti has seen an increased number of patients receiving pre-test counseling and HIV testing as well as increased number of patients receiving post-test counseling and results.
- In April 2005 the team working on improved care coordination identified the development of a register of all Togliatti-based medical, social and non-governmental institutions and organizations that provide services to PLWHA as its priority. The team members took stock of all services available to PLWHA, developed a register, and began to use the register in their every day practice. In January 2006 the register was submitted to the Healthcare Department and approved as guidance for care providers throughout the city. The register has been disseminated to all primary care and specialty care facilities, social services, AIDS Center and NGOs, and the team plans to conduct on-site orientations for care providers to better understand and use the register
- Following the Interregional Learning Session on HIV/TB co-infection in Moscow on March 28-29, providers in Togliatti are for the first time providing TB preventive therapy to HIV-positive patients. Seven patients have been started on preventive therapy, and four HIV-positive patients are on TB treatment.

St. Petersburg (Krasnogvardeiski Raion):

- The team working on improving access to care and patient retention has produced and installed 15 informational stands on HIV/AIDS containing information on expanded access to ART in all pilot healthcare facilities of Krasnogvardeiski raion. The stands, coupled with mass media campaigns and the announcement by the Globus project about the arrival of ART in the city, have led to a steady increase in the number of patients making appointments with the AIDS Center Infectious Disease Specialist. The average number of patients doubled from 6-8 per day to 18 per day by December 2005. Evaluation of these individuals has resulted in significant increases in the number of patients on ART in Krasnogvardeiski raion. While in December 2005, only 10 patients were on ART, by June this had risen to 53. At present, 680 patients receive ART in St. Petersburg. The proportion of patients registered at the AIDS Center who came back for a follow-up medical examination at least once a year has increased from 35% before the project inception to 50% as of June 2006.
- The team working on improving care coordination has established contacts with the faith-based sisterhood of the Alexander Nevsky Monastery, which is providing palliative care to people with severe chronic conditions. An agreement has been reached that polyclinic infectious disease specialists will invite nurses from the sisterhood to visit their patients in need of palliative care.

Orenburg City, Orenburg Oblast:

- At the recommendation of the HIV-TB team, the Head of the Orenburg Healthcare Department approved an Order in November 2005 to create a position for a TB specialist in the AIDS Center and established a formal referral system between the AIDS Center, the City TB Dispensary, and the Oblast TB Hospital. In December 2005, the TB specialist received only 5 patients but by February was seeing over 100 patients per month.
- The care coordination team prepared a package of documents justifying and preparing for a social worker position at the AIDS Center to improve coordination between medical and social services and NGOs. The package was approved by the Coordinating Committee and passed on to the Minister of Health. In January 2006, the AIDS Center filled the position for a social worker. Information on this new service has been widely advertised within both medical and PLWHA communities. In total, 221 patients are now on the social worker's list, including pregnant women and HIV-positive mothers and their babies. The social worker provides different types of assistance, including referrals to medical institutions; to social services for nutrition, monetary support and employment; and to the interior department for restoring documents and citizenship. (See Figure 10 on expansion of social support services for HIV-positive clients in Orenburg City.)

Figure 9. Russia: HIV-TB Results in Engels, Saratov Oblast

HIV+ screened for TB at least once as percent of the total number of patients accessing AIDS services, Engels, Saratov Oblast (by quarter, gender, IDU status)

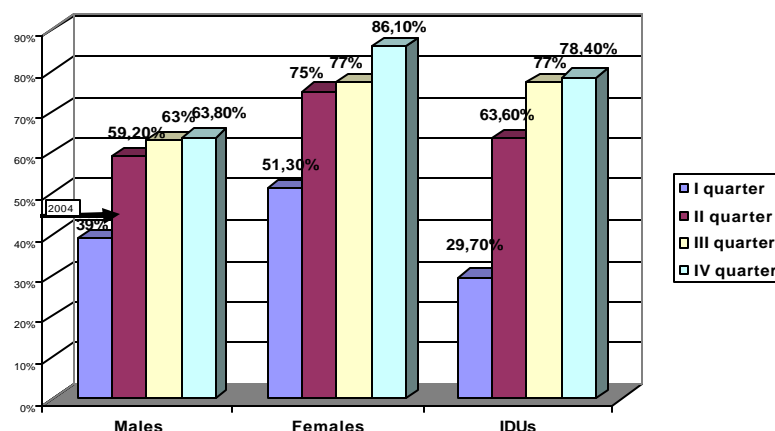
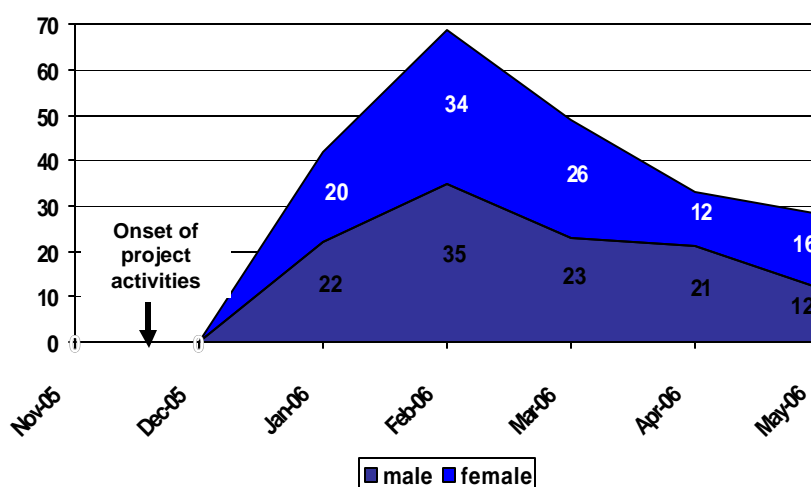


Figure 10. Russia: Patient Access and Support Results in Orenburg City, Orenburg Oblast

Number of new HIV+ clients provided with social support, Orenburg City



Building upon initial QA training and analysis of system for provision of contraceptive services to HIV-positive women conducted in early March with support of QAP Moscow staff, the team of providers from Balakovo met in May to discuss their objectives for improvement of family planning services for HIV-positive women. Access to family planning services for HIV-infected women and actions related to

increased awareness among city population on HIV infection were identified as a priority area. During the meeting, team members discussed possible solutions for improving access to contraceptive services and proposed to city health authorities that intrauterine devices (IUDs) be procured. The city health committee supported the idea of the team and made a decision to purchase 200 IUDs. The IUDs will be offered by the City Maternity House free of charge to all HIV-infected women who would like to use them. In addition, the city health committee has directed city women's clinics to secure resources in order to make IUDs available for free for HIV-positive women. The women's clinic #1 has already purchased the needed amount of IUDs. The team will collect data on the number on HIV-infected women who receive IUDs as a method for contraception.

In St. Petersburg, the Youth Narcological Center, via its helpline, has started to refer adolescents for youth-friendly family planning services that are offered by the Youth Organization "Rjevka". Along with free family planning services and consultations, Youth Organizations offer HIV testing and free condoms.

Collaboration with Other Donors and USAID Cooperating Agency Partners

QAP has coordinated actively with international donor organizations and other USAID cooperating agencies. In October 2005, Dr. Victor Boguslavsky made a joint presentation with Dr. Arsen Kubataev, AIHA Regional Director, on the HIV/AIDS Treatment, Care and Support Project achievements over the past year and future plans at the MOHSD HIV/AIDS Conference in Suzdal. QAP funded Dr. Bruce Agins to present on the work of the New York State AIDS Institute and the application of collaborative improvement to HIV services. The conference was attended by over 200 representatives from regional AIDS centers throughout the country, major international donors, and foreign and local organizations acting in the area of HIV/AIDS.

In March 2006, QAP hosted a meeting with AIHA staff to discuss joint project progress, streamline the existing procedure for information exchange, discuss data collection and reporting, and to coordinate QAP and AIHA activities in the Project regions. QAP is also working closely with the Healthy JSI Maternal and Child Health Initiative to facilitate counseling trainings in the four project regions.

QAP is also collaborating with the Global Fund and WHO in Russia. Global Fund Round III and IV partners were invited to take part in the learning session on TB and HIV co-infection in Moscow in March 2006. Specifically, Alexei Bobrik from Open Health Institute gave a presentation on their work to promote adherence to TB treatment among drug users. Additionally, QAP supported the participation of representatives from the GFATM Round IV regions of Tomsk (2), Kaliningrad (1), Altai Krai (2) and Chelyabinsk (2). These regions had the opportunity to share their work and difficulties on HIV-TB co-infection and learn from the work of the HIV-TB improvement teams from the QAP regions.

Representatives from five GFATM Round IV recipients attended the learning session on Preparedness for ART Scale-up that QAP conducted in Moscow in June 2006 (Volgograd Oblast, Krasnodar Krai, Leningrad Oblast, Irkutsk Oblast, and Sverdlov Oblast). WHO was also actively involved in organizing and conducting the June 2006 learning session in Moscow.

QAP staff prepared an article for the WHO Russia TB Bulletin on the work that has been done by the "Treatment, Care and Support" project teams working on improving detection and treatment of Tuberculosis in HIV clients in St. Petersburg, Engels, Togliatti, and Orenburg. It outlines the system analysis findings, priorities outlined by the project teams, and progress to date. The article was published in the April 2006 issue.

Finally, QAP has also collaborated in the past year with the U.S. Health Resources and Services Administration (HRSA) on adapting its *CAREWare* software for tracking HIV patient records for use in Russia. QAP translated the text used in the software to Russian, and HRSA has produced a test version of *CAREWare* in Russia for field testing by collaborative sites.

Research

QAP is in process of finalizing a contract with the Russian NGO “Stellit” to explore barriers to ART in St. Petersburg and Orenburg. Despite the fact that ART is now available, there is a low enrollment of patients into treatment. The results of this research will provide insight into patients’ perspectives on barriers to recruitment, enrollment, and receiving ART. This information will then better inform both government facilities and NGOs on how to organize care to improve patient access and address patient needs.

Directions for FY07

QAP will focus on scale-up of the treatment, care and support activities in Orenburg and St. Petersburg, to extend the collaborative to other areas of Orenburg Oblast and to one or more raions of St. Petersburg. QAP will focus on aspects of organization of large-scale provision of ART, rehabilitation services for IDUs, and HIV-TB co-infection services. QAP will work closely with AIHA in planning the scale-up activities to determine areas for collaboration.

In the area of family planning and HIV service integration, QAP will continue to work with teams to test and implement changes in family planning counseling and provision of care. We will organize family planning clinical trainings, continue to work on the accessibility of contraceptives and sterilization services, and improve referrals between services.

QAP will begin a new activity to improve social support to HIV-positive pregnant women and mothers in St. Petersburg. This activity will focus on improving referrals between medical and social services and NGOs and introduce NGO best practices in social support to government social services. This will build on the work of other USAID-funded projects.

QAP will continue to work on improving integration of TB and HIV services in St. Petersburg, Engels, Togliatti, and Orenburg. An HIV-TB round table is being scheduled for October 2006 where progresses on implementing TB preventive treatment among HIV-positives, as well as other clinical aspects of care for patients with HIV-TB co-infection, will be discussed.

Latin America and the Caribbean

2.11 Ecuador

Background

QAP has supported the implementation of an essential obstetric care improvement collaborative in Ecuador since August 2003. The collaborative, which began as a demonstration in Tungurahua Province, has since spread its clinical quality improvement training, and interventions to 13 of the country’s 22 provinces. During 2005, the leadership for the collaborative shifted from the Ministry of Health’s Free Maternity and Integrated Child Care Program to the Division of Standards (*División de Normatización*). This has been a positive development in that the continuous quality improvement activities being institutionalized in each participating province are not exclusively under the domain of the national Free Maternity Program, but rather part of the general health program of the Ministry of Health. QAP is an active participant in national policy discussions related to maternal health and is working with academic institutions to incorporate essential obstetric care concepts and procedures into pre-service training. QAP has also signed agreements with other technical cooperation agencies, including the United Nations Development Program (UNDP), United Nations Fund for Population Activities (UNFPA), and Family Care International (FCI), to undertake joint activities at the provincial level related to essential obstetric care.

Activities and Results by Major Program Area

Expand Continuous Quality Improvement of Obstetric and Newborn Care through the EOC Collaborative

The EOC collaborative works through facility-based continuous quality improvement (CQI) teams to engage national, provincial, and district health authorities in establishing local, integrated EOC systems that include four components: 1) conducting improvement activities in the facilities in the provincial network of districts, focusing on improving compliance with standards for basic and comprehensive EOC and the management of obstetric complications; 2) establishing an ongoing clinical training mechanism based on resources available at the provincial referral hospital; 3) adapting obstetric practices to the cultural needs of users; and 4) promoting community-based activities to increase access to and utilization of EOC services. At the same time, an underlying objective of the collaborative is to institutionalize the CQI process within the MOH service delivery system.

In August 2005, QAP supported the MOH in organizing a national conference on the EOC collaborative and institutionalization of CQI within the National Free Maternity Program. FCI funded the participation of delegates from the 12 provinces active in the collaborative, while the Free Maternity Program paid for delegates from the other 10 provinces. At the conference, delegates from the CQI teams to participating in the collaborative made presentations on improvements they had introduced in antenatal, delivery, postpartum, and newborn care and in the management of obstetrical complications. The MOH Maternal Health Division also issued in August 2005 its official National Plan of Action for Maternal Mortality Reduction. The plan includes the local EOC system approach and CQI as a main strategy.

As of June 2006, 12 of the country's 22 provinces are active in the collaborative, including 80 districts out of 168: Tungurahua, Azuay, Bolívar, Cotopaxi, Morona Santiago, El Oro, Imbabura, Orellana, Chimborazo, Carchi, Loja, and Manabí. In most of these provinces, all districts participate. In each province that joins the collaborative, three initial learning sessions are conducted in a decentralized fashion, under the responsibility of the provincial facilitator (a provincial MOH staff member), with QAP support. Most, and in some cases all, of these local costs are covered by local MOH budgets or funded by another donor. For example, in March 2006, QAP signed an agreement with UNFPA under which the UN organization will support five provinces (Manabí, Bolívar, Chimborazo, Orellana, and a new province, Sucumbíos) in implementing their provincial EOC system plans, including support for quality improvement activities, clinical training, follow-up, and supervision.

While the extent of development of the various components of the EOC model (i.e., improvement of clinical care processes, clinical training, cultural adaptation, community promotion) varies among provinces, most have achieved a minimum level of performance in non-complicated deliveries (see Table 7). An important area of improvement this past year was the institutionalization of active management of the third stage of labor in Ecuador (see further discussion below). Management of obstetrical complications continues to be a problem area for many provincial hospitals and will be the main focus of the collaborative in the coming year. The clinical training strategy based on training of provincial trainers has been validated in two provinces and proposed to the MOH for expansion to the other provinces.

Table 7. Ecuador: Selected Indicators from the EOC Collaborative (Pooled Data from All Provinces Reporting)

Percentage of reviewed cases that complied with quality standards	July 2003	April 2006
% of prenatal consultations in which all standard tasks were performed	0%	92%
% of deliveries in which the partograph was correctly used	44%	94%
% of normal deliveries in which oxytocin was administered to prevent hemorrhage	0%	67% (3/06)
% of newborns for whom the standard tasks were performed	25%	94%
% of normal deliveries in which standard, immediate postpartum tasks were performed	0%	93%
% of obstetrical complications (postpartum hemorrhage, pre-eclampsia and eclampsia which were managed according to standards	0%	8%

Support the MOH Maternal Mortality Reduction Committee

QAP continued to provide technical support to the Ministry of Health's Maternal Mortality Reduction Committee, which provides oversight for the EOC collaborative. In December 2005, QAP organized with the MOH a two-day review of quality standards for essential obstetric care. Standards were updated in accordance with current international evidence as well as with the recommendations received from the facilities implementing ongoing monitoring of compliance with these standards. Examples of standards that were updated included the list of inputs (equipment and supplies) for basic and complete EOC facilities (standard #1); addition of administration of oral iron and folic acid to the prenatal care standard (standard # 2); upgrading the standard on use of the partograph (standard # 3) to reflect not only correct drawing but its actual use for decision-making; officially introducing the standard on active management of the third stage of labor (standard # 4); and updating the standard on immediate newborn care.

A one-day follow-up session was held in January 2006 to discuss and improve the Ministry of Health's standards for management of obstetrical complications (preeclampsia/eclampsia, hemorrhage, sepsis). QAP and the MOH invited recognized national obstetrics specialists to participate in these discussions. Important changes were introduced in the standards to specifying key elements that should be included in the management of these complications at basic and comprehensive EOC facilities. Important recommendations were given for the MOH to update its norms regarding the use of Magnesium Sulphate, immediate procedures in case of post-partum hemorrhage, and laboratory tests. Following the standards review, the Ministry of Health officially approved an Addendum to the National MOH Norms, in order to specify active management of third stage of labor in all facilities in Ecuador. The Addendum was officially launched and distributed at a meeting of national and regional public health authorities on April 20, 2006.

Initiative a Spread Collaborative on Active Management of the Third Stage of Labor

Building on the extraordinary expansion of the practice of AMTSL in Ecuador that was facilitated by the EOC collaborative and the formal incorporation of AMTSL in Ecuador's maternal health norms in April 2006, QAP proposed to the MOH that a focused spread collaborative be implemented to expand the use of active management in the provinces where it has not yet been introduced. The MOH is in agreement, and the spread collaborative will be launched in July. A series of four regional one-day meetings will be held to present the spread strategy and focused change package for AMTSL. The meetings will be led by the central MOH and will bring together teams from two or three provinces who will direct the scale-up of AMTSL within their respective province. QAP is preparing a series of materials, which will be used in the spread collaborative, that summarize the lessons and best practices from the EOC collaborative sites in introducing AMTSL.

Increase the Cultural Adaptation of Delivery Care

In November 2005, the QAP-led experience of cultural adaptation of delivery care conducted in Tungurahua Province in 2005 was presented at an international meeting on "Intercultural Approaches to strengthening health services," organized by UNFPA and Jambi-Huasi, an Indian intercultural health facility in the town of Otavalo. QAP also worked with FCI to finalize a "Manual for Cultural Adaptation of Obstetric Practice" which will be published in Spanish in the coming months by FCI, QAP, and the Ministry of Health. The cultural adaptation methodology, which involves a series of participative workshops that bring together health providers and community members to better understand delivery needs and preferences, will be tested in other provinces in the coming year to measure the impact of the workshops on the rate of institutional delivery and user satisfaction.

Management of the LAC EOC Collaborative Website



The www.mortalidadmaterna.org website, managed by QAP's Ecuador team, has become a key tool for the provincial health authorities in Ecuador to review improvement data submitted by teams and create provincial level consolidated spreadsheets. The website has received more than 11,000 visits and continues to serve improvement teams in all three countries participating in the regional EOC collaborative. Five more topics were discussed in the e-mail Technical Forum moderated by the LAC EOC Collaborative Coordinator in Ecuador, Dr. Luis Vaca during Year Four: 1) incentives for health personnel to participate in CQI activities; 2) successful experiences in improving management of obstetrical complications in large hospitals; 3) successful experiences in assuring continuous availability of specialized care for obstetrical complications; 4) implementing active management of the third stage of labor; and 5) ensuring continuous availability of drugs and supplies needed to manage obstetrical complications. A new forum (the 8th to date) was initiated at the end of June, concerning the organization of referral and counter-referral systems for obstetric care. While only 10-15 people tend to post comments for each forum, some 150 people receive the messages, and the forum continues to draw new participants, including those from countries outside the three participating in the collaborative.

Operations Research

A new operations research study was approved and initiated in Ecuador in Year Four. The study on the validity of self-measurements by facility-based improvement teams will retrospectively review improvement data reported by teams in 12 hospitals (6 provincial and 6 district hospitals) that are now participating in the EOC collaborative. Data collection instruments were developed and field-tested. A team of three external evaluators was trained. The accuracy of each evaluator was assessed against the "gold standard" of assessment by the EOC Collaborative Coordinator, Dr. Luis Vaca, and discrepancies between the evaluator's scoring of a set of records and that of Dr. Vaca were analyzed and discussed. The external evaluators received further training until they reached a minimum level of agreement with the ratings of Dr. Vaca. Data collection in the 12 provincial hospitals began in June 2006.

Directions for FY07

QAP will implement the two new spread collaboratives in Ecuador with the MOH, each narrowly focused on one aspect of EOC: 1) introducing the practice of Active Management of the Third Stage of Labor in the remaining 10 provinces of the country where it has not yet been systematically introduced, including the two largest cities in the country, Guayaquil and Quito; and 2) improving the management of obstetrical complications in the provincial referral hospitals that are now part of the EOC collaborative, beginning with a demonstration phase in eight provincial hospitals. The AMTSL spread collaborative will be launched in July 2006 with a national meeting of representatives of all 22 provinces. QAP will continue to support the MOH *Departamento de Normatización* in consolidating improvements in all of the technical interventions encompassed in the EOC collaborative in Ecuador.

The operations research study on the validity of self-measurements will be completed. QAP's Ecuador team will continue to manage the LAC EOC collaborative website. QAP will provide technical support to the MOH and UNFPA in creating clinical EOC training centers in five more provinces: Chimborazo, Bolívar, Orellana, Manabí, and Sucumbíos, based on the successful model training center established by the MOH with QAP support in Tungurahua. QAP will also work with the National School of Midwives of the Central University of Ecuador to strengthen pre-service training in EOC for its students, including competency-based instruction on manual procedures.

2.12 Honduras

Background

QAP began assistance to the Secretariat of Health (SOH) of Honduras in 1997, designing and implementing a QA system to improve the quality of maternal and child health services in a demonstration health region (Comayagua). Areas assisted by QAP expanded to a second health region (Copán) in 2003, which was selected by the SOH to participate in the regional EOC improvement collaborative. At the same time, QAP continued to support the Secretariat of Health to develop continuous quality improvement policies and structures at the central and regional levels. In late 2004, the SOH changed its organizational structure from eight health regions to 20 health departmental areas and requested that QAP support the scale-up of the CQI program in the five departmental regions assisted by USAID: Copán, Comayagua, La Paz, Intibucá, and Lempira. USAID and the SOH also requested that QAP organize and implement a CQI system within the municipal health networks that are being put in place in selected municipalities in Copán, Lempira, and Comayagua as part of a health sector reform decentralization project. In January 2006, USAID expanded QAP's scope of work to encompass technical support for health sector reform activities and reproductive and child health and to incorporate quality improvement activities within these components of USAID's health sector assistance to Honduras. Thirteen new technical staff members were added to the QAP team.

Activities and Results by Major Program Area

Strengthen QA Capacity and Improve Quality of Care for Maternal and Child Health Services in Five Departmental Health Areas

During Year Four, QAP continued to support the scale up and institutionalization of a CQI program for essential obstetric care and child health services in the five USAID-assisted departments. QAP staff provided technical support to the Quality Unit in each department and has helped to train a total of 67 CQI facilitators, who are SOH staff in the departmental health offices, hospitals, and MCH clinics who in turn provide coaching and supervision to CQI teams. To date the work in Intibucá has been limited to the departmental hospital due to a lack of counterpart at the departmental level. By June 2006, CQI teams were functioning in all five departmental hospitals, all 12 MCH clinics, and in 66% (54/82) of health centers staffed by physicians (CESAMOS). In all, 101 CQI teams are active in 71 facilities. Compliance with EOC and IMCI standards has surpassed 70% of consultations in most facilities. Management of obstetrical complications continues to be the weakest area of EOC.

QAP also worked with the SOH Technical Unit of Family Health to update, field test, and finalize standards and indicators for maternal and child care. A manual of EOC and MCH quality standards and indicators was prepared and is awaiting final approval and publication. Clinical training capacity for EOC and child health was developed in each of the five departmental hospitals. Eighteen users committees have been organized and trained in the departments of Lempira, Comayagua, Copán, and La Paz.

Figures 11, 12, and 13 below chart the increase in compliance with standards for prenatal care, labor monitoring, and case management of children with pneumonia, three of the quality indicators that CQI teams track on a monthly basis.

Figure 11. Honduras: Compliance with Prenatal Care Standards. Four Departments, 2005-2006

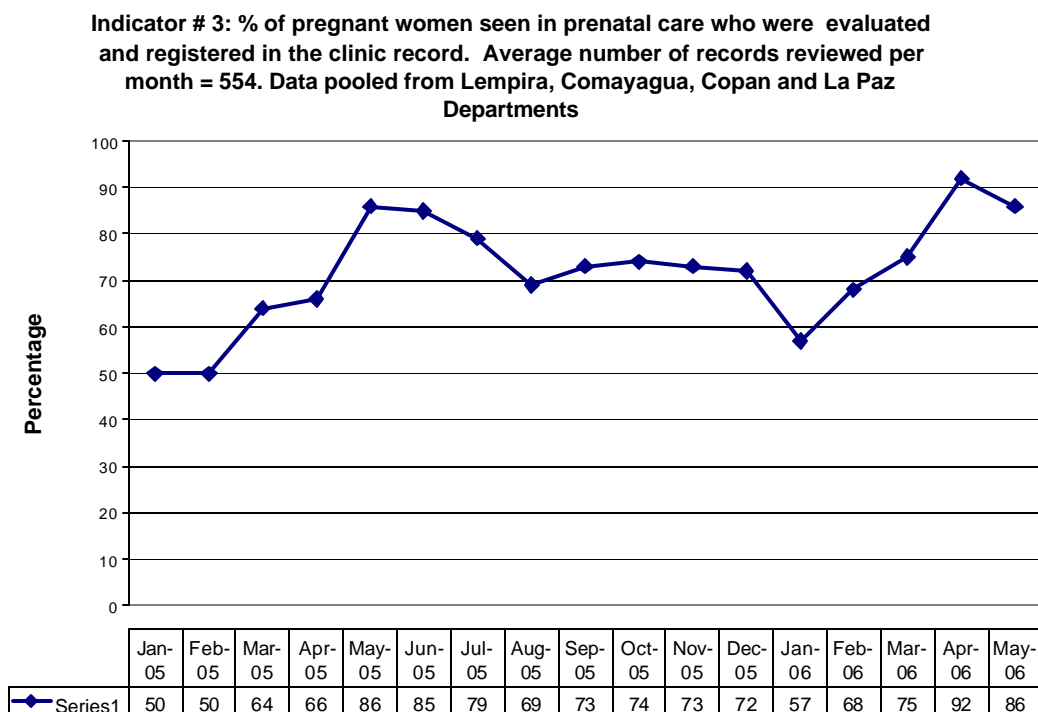
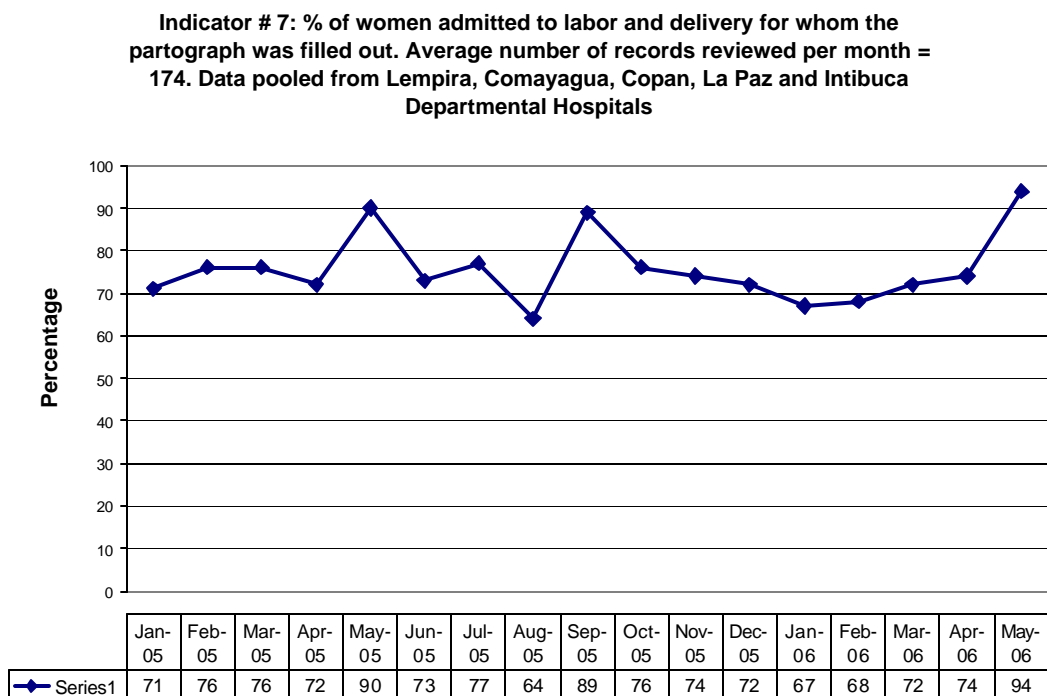
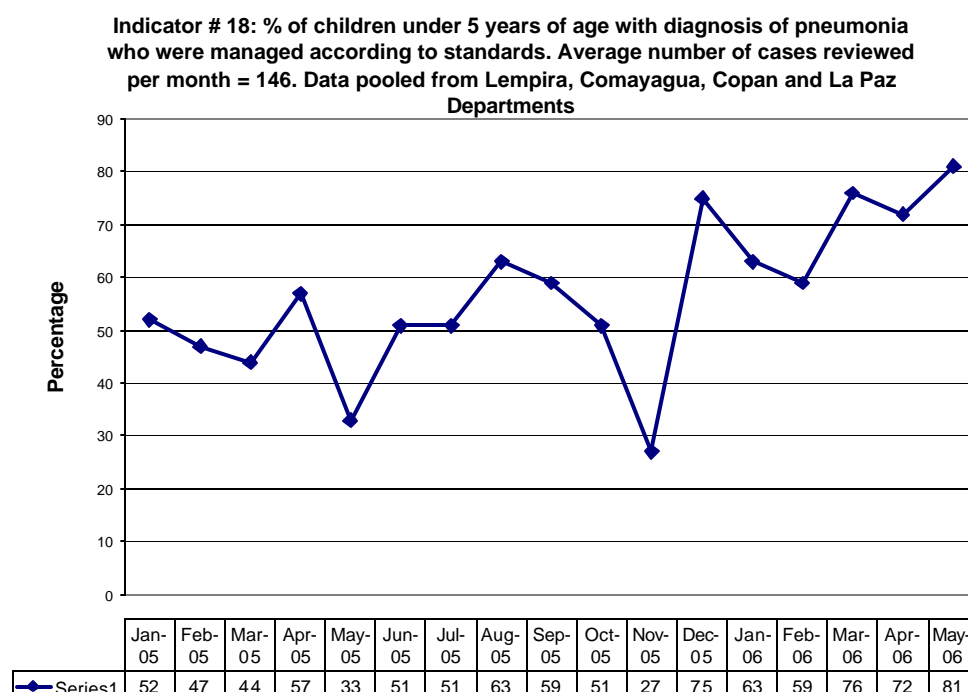


Figure 12. Honduras: Compliance with Labor Monitoring Standards (Correct Use of the Partograph). Five Departments, 2005-2006



**Figure 13. Honduras: Compliance with Standards for Case Management of Pneumonia
Four Departments, 2005-2006**



Support the Health Sector Reform Program

A major new activity for QAP this year was to help the SOH to design and operationalize mechanisms and instruments to incorporate quality improvement activities within its health sector reform program. QAP supported the central SOH in the organization of the “Central Unit for Expansion of Coverage” which will be in charge of managing the processes for selection, bidding, contracting, and evaluating NGOs interested in managing healthcare facilities. This unit also will manage the funds that will be paid to NGOs. The funds will come initially from external cooperation sources and progressively from regular budget allocations. Working together with the SOH, QAP developed the manuals, instruments, and operational procedures (including an Administrative Manual, Accounts Manual, Supplies Procurement Manual, and others) that will help to guide NGOs that are interested in contracting with the SOH to manage decentralized facilities.

QAP also continued to support municipal governments and NGOs in developing capacity to manage decentralized healthcare facility networks in their jurisdictions. Working with the local NGOs, QAP trained their personnel in the use of the previously described manuals. During the past year, QAP continued to support the MANCORSARIC network in Copán and the MAFE network in Comayagua in putting in place a CQI system of monthly monitoring of quality indicators and improvement activities related to maternal and child health services. The CQI system is being developed in these facilities as part of overall management system improvements, including information, financing, payment, and human resources management. By June 2006, 18 CQI teams had been formed and trained in an equal number of MANCORSARIC and MAFE facilities. Four users’ committees were organized and have started to measure client satisfaction through surveys in the municipalities. Based on the successful results obtained so far, QAP helped MANCORSARIC develop a proposal to the SOH to manage all 15 facilities in the jurisdiction of 4 municipalities (Santa Rita, Copán Ruinas, Cabañas and San Jerónimo).

Another mechanism supported by QAP in the past year was the development of management agreements between the departmental health offices and the departmental hospitals in the five areas, which were signed in March 2006. The management agreements will provide funds from the SOH departmental offices to the hospitals according to the extent of quality improvement on 16 indicators, measured quarterly by an external quality assessment conducted by the departmental “Extension of Coverage” Unit. Amounts ranging from USD\$15,700 to USD\$21,000 will be paid to each hospital based on the level of complexity of its services and degree of quality improvement. The funds may be used by the hospital management to finance improvement activities and service enhancements.

QAP supported a local NGO that manages the health center at San Manuel de Colohete in developing its QA and health service management capacity in order to perform more efficiently under this decentralized health management scheme. The SOH, acting as the oversight body for such contracts, conducted the first external quality evaluation of services provided at the health center in March 2006. The facility achieved a rating of 77%, which is considered a success. The emergency care clinic at Taulabé, operated by the same NGO, has also received external quality assessments by the Secretariat of Health, achieving a 67% rating in the first assessment, a 71% rating in the second assessment, and an 86% rating in the third assessment. These progressive increases in achievement of compliance with standards translate to increasing funds made available to the clinic.

QAP and USAID supported the participation of Dr. Dinegri, a Brazilian health sector reform expert, in the First Health Sector Reform Conference organized by the National University of Honduras, with support from the MOH, USAID, the Social Security Institute, and other agencies. Dr. Álvaro González, QAP’s lead advisor for health sector reform, presented the experience of USAID in supporting decentralization in Honduras.

Provide Technical Support to the National Quality Management Department

The Department of Quality Management of the SOH has worked closely with QAP in developing the CQI system at the departmental area level. Dr. Rosario Cabañas, head of the quality unit, has made visits to each of the departmental areas, working with departmental directors, hospital directors, and departmental CQI facilitators. The Quality Department is interested in extending the monitoring of quality indicators and rapid quality improvement activities to all 20 departmental areas. The Quality Department also works closely with the Department of the Development of Health Services Networks and the Department of Integrated Family Health to provide technical support for the implementation and monitoring of management agreements with hospitals.

Provide Technical Support for Reproductive and Child Health

Since the beginning of 2006, QAP has been supporting the implementation of the Secretariat of Health’s family planning strategy in six departmental areas: La Paz, Intibucá, Comayagua, Copan, Lempira, and Ocotepeque. QAP’s reproductive and child health staff is helping the departmental offices implement changes in how family planning activities are programmed, monitored, and evaluated. Each quarter, QAP advisors collect data on the delivery of family planning services, analyze the data with local health authorities, and advise on strategies for improvement. QAP advisors are also working with SOH staff to monitor integrated child health activities at the community level (*Atención Integral a la Niñez en la Comunidad*, or AIN-C) in 665 communities. QAP coordinates its work with CARE, World Vision, and other NGOs that are implementing AIN-C in some 200 other communities. QAP advisors assisted the SOH to develop the technical proposal, facilitator’s guide, monitoring manual, and other elements of a plan to extend AIN-C to some 2000 communities throughout the country, with funding from the World Bank.

Directions for FY07

QAP will continue to support the institutionalization of the CQI program in the five departmental areas assisted by USAID and support the departmental health offices in strengthening their capacity to provide oversight to healthcare networks managed by NGOs. Improving the management of obstetrical and newborn complications will receive more focus through the EOC collaborative. QAP will support the national Quality Department of the SOH and support the SOH in testing and refining policies and instruments to improve quality and efficiency of services through management agreements with hospitals and NGO networks. A national conference on quality improvement in EOC and child health services is planned for August 2006. QAP will also expand its work with NGOs to improve the quality of services in decentralized healthcare networks.

In the area of health sector reform, QAP will support training of new decentralized provider organizations in health services management and quality assurance. Support will also be provided to the SOH departmental offices in developing their strategic plans and in strengthening their role of providing oversight to the delivery of health services by NGOs. QAP will continue to provide support to the decentralized service delivery entities MANCORSARIC and MAFE and support the SOH's new Extension of Coverage Unit in issuing contracts with new decentralized providers. QAP will also continue to support the negotiation and implementation of management agreements between the departmental offices and maternity hospitals.

In the area of reproductive health, QAP will introduce continuous quality improvement activities to the hospitals and maternity clinics it is supporting, including the development of quality standards and indicators to monitor compliance, the organization and training of CQI teams, routine monitoring of indicators, and the application of QA methods to improve performance.

2.13 Nicaragua

Background

QAP has, since 1999, provided support to the Ministry of Health (MINSa) and to PROFAMILIA, the leading private sector FP provider, in the implementation of a program for ongoing improvement in quality based on the promotion of a culture of quality, professional competence, and user satisfaction. From an initial four municipalities in 2000, QAP is now supporting quality assurance activities related to MCH in 14 of the country's 17 local integrated health systems (SILAIS): Río San Juan, Jinotega, Matagalpa, Granada, Boaco, Chontales, Chinandega, Estelí, South Atlantic Autonomous Region (RAAS), North Atlantic Autonomous Region (RAAN), Nueva Segovia, Madriz, Masaya, and León. In July 2004, QAP began providing technical assistance in quality improvement to the 24 delegations of the Ministry of the Family (MIFAMILIA) in all Nicaraguan departments. QAP is also assisting ten private medical clinics (*Empresas Médicas Previsionales* or EMPs) that provide services financed by Social Security in seven SILAIS. Since May 2005, QAP has also provided technical assistance to the NGO ProMujer, which belongs to the Nicasalud NGO network.

In May 2005, as part of institutional restructuring, the Ministry of Health created the Directorate of Quality Assurance of Health Services, which has assumed leadership for quality improvement efforts at both the primary and secondary care levels. QAP supports this new directorate and continues to work very closely with the Program for Integrated Care for Women and Adolescents (*Programa de Atención Integral de la Mujer y Adolescencia*, or AIMA). QAP also closely coordinates activities with other external cooperation agencies active in the health sector, including UNICEF, the Pan American Health Organization (PAHO), CARE, IPAS, UNFPA, Nicasalud, and Management Sciences for Health.

In September 2005, MINSa requested QAP assistance in a new clinical area: HIV/AIDS. A new scope of work was developed and additional Mission funding provided for QAP to assist MINSa to define quality standards and integrate voluntary counseling and testing for HIV within the family planning program, emphasizing prevention of mother-to-child transmission of HIV.

Activities and Results by Major Program Area

Pediatric Hospital Improvement Collaborative

QAP began working with MINSA to improve pediatric hospital care in 2003 through an improvement collaborative with participation of six departmental hospitals (Bluefields, Chinandega, Estelí, Jinotega, Madriz, and Matagalpa). In August of 2004, five more SILAIS hospitals joined to the PHI collaborative (Boaco, Puerto Cabezas, Granada, León, and Nueva Segovia), and in January 2005, three more hospitals joined (Juigalpa, Masaya, and La Trinidad). One learning session of all the hospitals was held in August 2005; a second learning session planned during 2006 has not yet been held due to the five-month physician strike, which ended only recently. In 2006, the private provider AMOCSA, which operates five clinics providing health services in the Social Security system, joined the collaborative. QAP staff has worked with all 14 SILAIS hospitals and AMOCSA to establish quality teams that systematically monitor quality indicators related to the management of the most common pediatric conditions. Clinical areas emphasized in the past year include care of the newborn (both with and without complications), management of the severely malnourished child, nutritional recuperation, perinatal mortality surveillance, and pediatric emergency care. QAP staff also adapted a pediatric emergency care job aid used in emergency wards in the U.S. to Nicaraguan treatment protocols. QAP assistance has also focused on improving client focus in pediatric care, including improving interpersonal treatment and more individualized counseling, especially for malnourished children. Pediatric care clinical training centers were established in three SILAIS hospitals: RAAS, Estelí, and Chinandega. In cooperation with UNICEF, QAP has worked with MINSA to integrate the pediatric hospital improvement collaborative standards into the certification process for the national Mother-Baby Friendly Hospital Initiative.

Figure 14 shows pooled data on case fatality for diarrhea and pneumonia for children under five in the six Phase I SILAIS hospitals that began with the collaborative in 2003. Figure 15 shows case fatality rates for severe asphyxia in the three hospitals that have worked the most on this aspect of newborn care.

Figure 14. Nicaragua: Case Fatality for Pneumonia and Diarrhea in Phase I Hospitals

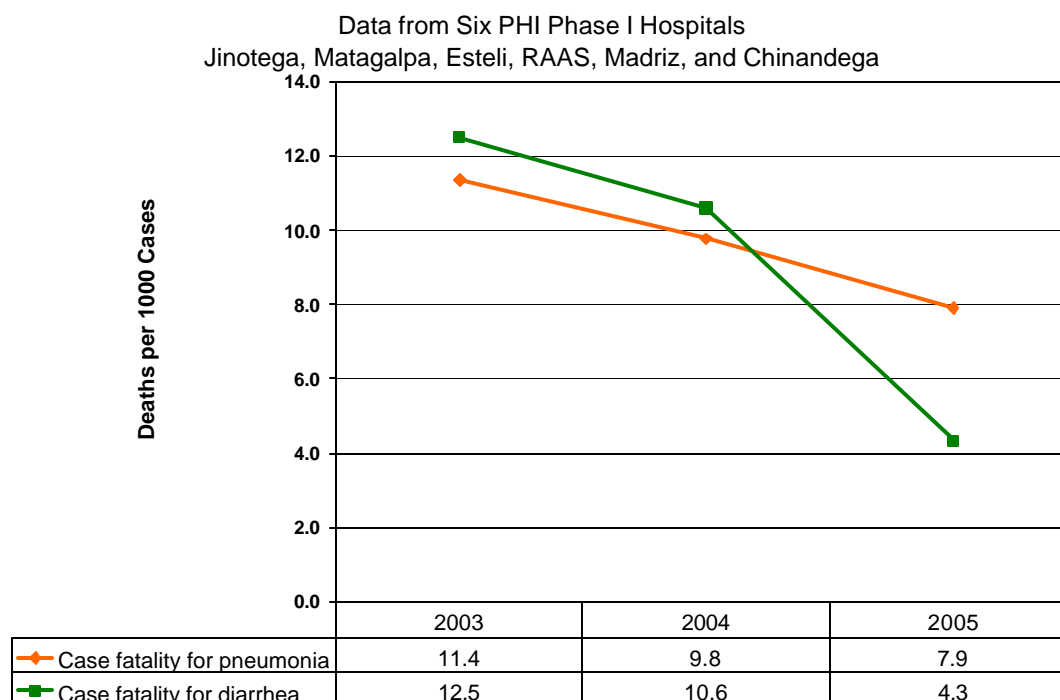
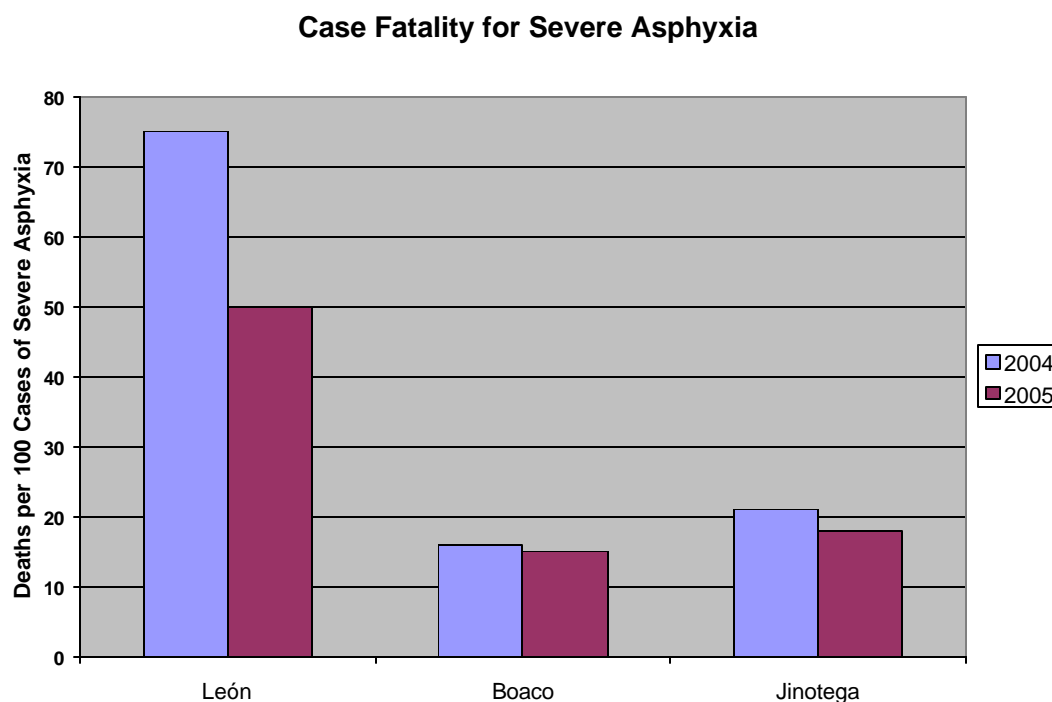


Figure 15. Nicaragua: Case Fatality for Severe Asphyxia in Three PHI Hospitals



Quality Improvement in Neonatal and Essential Obstetric Care

In Year Four, all 14 QAP-assisted SILAIS participated in the EOC collaborative, including 127 health center teams and 15 hospital teams. Technical support from QAP for collaborative teams included technical training in the management of obstetrical complications (including pre-eclampsia/eclampsia, postpartum hemorrhage, prevention and treatment of obstetric sepsis, and hemorrhage during pregnancy) for primary and secondary level providers in five SILAIS and the development of a job aid on the management of obstetrical complications. Three EOC clinical training centers have now been established, in Chinandega, Madriz, and León, to provide in-service, competency-based training for medical and nursing personnel from the municipal health centers in their respective SILAIS.

There have been substantial gains made in quality of EOC across the participating SILAIS in the EOC improvement program. Table 8 shows pooled compliance with standards for key EOC processes from 2003 through 2005. For each year, values shown are averages of monthly values for compliance with standards across the 14 SILAIS.

Table 8. Nicaragua: Compliance with Key EOC Process Standards in 14 SILAIS, 2003-2005

Indicator (%)	2003	2004	2005
Use of partograph for labor monitoring	40	77	87
Administration of oxytocin as part of active management of the third stage of labor	69	99	100
Postpartum monitoring according to standards	44	75	85
Appropriate management of obstetric complications	56	82	87

QAP staff has also worked closely with the MINSA AIMA program to revise and update clinical guidelines related to management of obstetric complications. These have recently been reviewed by teams from all the SILAIS in two regional workshops and are expected to be formally endorsed by the MINSA Directorate of Regulation in the coming year. The quality standards and indicators for antenatal care, delivery care, and immediate care of the newborn that have been promoted through the collaborative have been officially incorporated into the new MINSA perinatal clinical record, are part of required reporting for hospitals, and have been included within the management agreements with municipal health centers and hospitals that are being executed through the Health Sector Modernization Project being supported by the World Bank and Inter-American Development Bank.

QAP also supported SILAIS authorities in seven SILAIS to provide technical support and quality monitoring and improvement coaching to 10 EMPs providing services in the SILAIS. This assistance has the dual objective of strengthening the governance role of SILAIS authorities and improving quality of EOC in the private sector.

Quality Monitoring and Improvement in the 24 Delegations of MIFAMILIA

The 24 delegations have been carrying out monthly measurements of compliance with quality standards and continued to introduce improvements related to special protection of abused children, reorganizing personnel functions, improving waiting room comfort, and training staff in current policies and regulations. The delegations are also now carrying out quarterly client satisfaction surveys and have introduced client complaint boxes with explicit procedures for managing and following up complaints. QAP assisted MIFAMILIA staff at the central level to develop a formal quality assurance system within the structure of the Ministry which will take effect in 2007. Funds for QA activities have been included in MIFAMILIA's 2007 budget.

Organization of High Quality HIV/AIDS Services and Prevention of Mother-to-Child Transmission of HIV

QAP began working with MINSA in September 2005 to reorganize and restructure its program for sexually transmitted infections (STIs) and HIV/AIDS from a vertical program to an integrated model of care. In January 2006, responsibility for the STI-HIV/AIDS program was transferred from the Directorate of Epidemiology to the Directorate of Quality Assurance. Since that time, QAP has assisted MINSA to develop overall guidelines for care and treatment of persons with HIV/AIDS and for the prevention of the mother-to-child (vertical) transmission of HIV, a training plan for AIDS care and treatment and PMTCT, and has participated in technical advisory groups that are reviewing the country's national strategic plan and policies for HIV/AIDS. QAP has also supported a technical team focused on laboratory services to develop an algorithm and operational manuals for HIV testing and handling of tests in the MINSA lab network, including pilot testing of a bar code system for identifying and tracking HIV test samples.

QAP has assisted with the implementation of several HIV/AIDS training activities:

- Training in HIV testing of some 107 lab technicians and professionals from 8 SILAIS hospitals and 60 health centers
- Sensitization workshops on HIV stigma and discrimination in 8 SILAIS hospitals with 160 staff of various disciplines
- Training workshops on standards and indicators for the integration of STI-HIV/AIDS counseling and testing with family planning counseling in eight SILAIS, for 150 staff from 67 health centers



Training workshop in RAAN to prepare FP counselors to integrate HIV counseling and testing in their services.

- Workshop on management of HIV/AIDS activities, emphasizing prevention of vertical transmission, for 45 managers from five SILAIS and hospitals

QAP has also supported the development of posters on quality counseling for family planning and STI-HIV/AIDS in Spanish and Miskito and job aids on taking and processing blood samples for HIV testing. Eight SILAIS have begun implementing the quality counseling standards and started monitoring their own compliance with standards for family planning and HIV/AIDS counseling.

Redesign the QA Program of PROFAMILIA

After some five years of assistance, QAP closed out its technical assistance to PROFAMILIA in December 2005. During the last half of 2005, QAP assisted PROFAMILIA in updating its standards for pediatric care, (the 9th and final chapter of PROFAMILIA's clinical norms) and worked with its national QA committee in formalizing the organization's QA policies and client-oriented service strategy. These elements, in turn, facilitated PROFAMILIA's inscription as an *Empresa Médica Previsional*, eligible to provide a range of health services to affiliates of the Nicaraguan Social Security Institute, which is a key part of the organization's long-term strategic business development plan. A final report on the accomplishments of PROFAMILIA's quality assurance program was developed and published in Nicaragua in March.

Improve Maternal and Child Care in *Empresas Médicas Previsionales*

As noted above, QAP worked with MINSA authorities to assist 10 private medical clinics to improve the quality of routine obstetric care and immediate newborn care. The first group of EMPs that began to receive technical assistance in improving quality of EOC in 2004 has demonstrated improvement in 2005, as seen in Table 9. Values shown for each year represent averages of monthly values for compliance with the standards in the four EMPs.

Table 9. Nicaragua: Compliance with Key EOC Process Standards in Four *Empresas Médicas Previsionales*, 2004-2005

Indicator (%)	2004	2005
Use of partograph for labor monitoring	52	81
Administration of oxytocin as part of active management of the third stage of labor	38	83
Postpartum monitoring according to standards	35	66
Appropriate management of obstetric complications	88	98

Support to NGO ProMujer

ProMujer has 14,000 clients who receive low-interest loans for microenterprise development and medical care, such as gynecological services, family planning, and utero-cervical cancer prevention, through the NGO's four clinics. QAP worked with ProMujer in the past year to establish quality standards, update its gynecological and obstetric care clinical protocols, and introduce mechanisms for measuring client satisfaction. Quality improvement teams were established in the four clinics. Two new clinics are scheduled to open in the second half of 2006, and QAP will work with those facilities from the outset to establish quality improvement activities.

Operations Research

Developing tools for measurement and monitoring of the competence of skilled birth attendants (SBA): During July and August 2005, simplified measurement methods to assess SBA competency were field tested in all 20 hospitals in the country that attend births and in 44 health centers, covering a total of 1,358 medical and nursing personnel. The global competency score calculated across all types of personnel and technical areas was 62%. The primary areas of knowledge deficiency identified were labor monitoring, use and interpretation of the partograph, management of the newborn (both with and without complications), management of gestational hypertension, and prevention of sepsis. The weakest skill areas identified were manual extraction of the placenta, bimanual uterine compression, and neonatal resuscitation. These skill and knowledge gaps will be the focus of in-service training activities in the coming year.

Mother-Baby Friendly Program Assessment in Nicaragua: Additional data collection and completion of this study was planned for February 2006 but had to be postponed due to the five-month physician strike. A visit by Bart Burkhalter to assist with follow-up sites visits to complete data collection is planned for August 2006.

Directions for FY07

In Year Five, the PHI collaborative will expand to include two more SILAIS hospitals (Rivas and Río San Juan) and the national pediatric referral hospital, Berta Calderón Hospital in Managua. Stronger linkages will be developed with improvement of pediatric care and IMCI in primary healthcare facilities in eight SILAIS. QAP will also support MINSA in the Mother-Baby Friendly certification process in the 16 MINSA hospitals participating in the collaborative and in ProMujer's facilities. Five more pediatric clinical training centers will be established, and QAP will work with MINSA to apply the "Prize for Knowledge" continuing education process in 11 hospitals and eight health centers on topics related to case management of common pediatric conditions and malnutrition. Support for EOC activities in 14 SILAIS will emphasize strengthening health provider competence in the management of obstetric complications and integration of family planning post-obstetric event. EOC improvement activities will be initiated in the SILAIS of Rivas and Managua. Job aids and posters on contraceptive methods will be developed and disseminated. QAP will also work with MINSA to introduce cultural adaptation of delivery care activities to increase demand for institutional delivery in pilot facilities. In the area of HIV/AIDS, QAP will assist MINSA to train personnel at the primary and secondary levels throughout the country in HIV/AIDS and PMTCT, using the "Prize for Knowledge" continuing education methodology and departmental forums on HIV/AIDS. QAP will also support the creation of multidisciplinary teams and in-service training programs in hospitals to provide integrated care and support to patients with HIV/AIDS and continue to support development of laboratory staff capacity for HIV diagnostic testing, as well as monitoring of compliance with quality standards for HIV/AIDS services. QAP will continue providing technical assistance to 10 private medical providers working in the Social Security system and expand quality improvement activities to two more EMPs. QAP will also support the Ministry of the Family in operationalizing and institutionalizing a QA system.

2.14 Peru

Background

Since 2003, QAP has provided assistance to Max Salud, a Peruvian NGO, for the institutionalization of a CQI program within its four urban clinics in the city of Chiclayo. Max Salud has successfully scaled up its CQI system from its initial focus exclusively on maternal and perinatal care, to new areas, such as pediatric care, surgery center, client satisfaction, and quality of clinical records. This year, Max Salud opened a new clinic in the city of Cajamarca in the highlands. Max Salud is planning to organize a CQI program in this new clinic, based on the experience in its clinics in Chiclayo.

Activities and Results

QAP continued to provide short-term technical assistance to Max Salud to develop a CQI system within its network of four clinics. In late 2005, USAID/Peru announced the support Max Salud was receiving for its programs will not be renewed. Accordingly, in February 2006 QAP worked with the Max Salud QA managerial group to plan the transition to a completely self-managed QA program. By that time, the QA Coordinator of Max Salud, Dr. José Cabrejo, resigned and was replaced by Dr. Luis Castañeda. QAP worked with Dr. Castañeda to ensure a smooth internal transition. By the end of Year Four, QAP was providing technical assistance entirely through email and phone, while the QA program at Max Salud continued to be active, managed by Dr. Castañeda and the QA managerial team, with strong support from Max Salud's Executive Director.

During July 2006 Max Salud celebrated its anniversary with a "Month of High Quality" program, which included an open house on quality results in each clinic, several conferences on the subject, and the inauguration of the QA program in the new Max Salud Clinic at Cajamarca, in the Peruvian highlands.

Directions for FY07

QAP will continue to provide technical assistance mainly through email and phone, with the objective of supporting the consolidation and institutionalization of Max Salud's CQI system. QAP will also advise Max Salud on the development of a QA Program at the new Clinic in Cajamarca.

3 Core Technical Activities

3.1 Collaboratives Documentation and Evaluation

Background

Collaboratives are an important new technology for rapidly scaling up quality improvements in healthcare. The improvement collaborative approach brings together practitioners from different healthcare organizations or sites to work in a structured way to rapidly improve the quality of a specific health service. The effectiveness of collaboratives has been demonstrated in the United States. The Quality Assurance Project is adapting and implementing the technology in developing countries.

In its first four years, QAP has implemented 24 collaboratives in 11 developing countries. Another three collaboratives (Eritrea EOC, Guatemala PHI, and Jamaica adolescent health) were initiated but were ended after a period of 6-12 months without completion. Collaboratives currently being supported are listed in Table 10.

During Year Two, QAP launched a program of documentation, evaluation, and operations research related to these collaboratives for the purpose of learning how effective they are and under what conditions, and how to make them more cost-effective. That effort has yielded a broad set of data on the experiences of all the programs, which is currently being analyzed. QAP, in Year Three, also initiated an in-depth study of the effectiveness of a multi-hospital collaborative in Niger in comparison to no program and a traditional staff training program. Most collaboratives rely on self-assessed data on compliance with standards of the targeted services to measure improvement over time. In Year Four, QAP developed protocols for operations research studies of the validity of the self-generated data in collaboratives in Ecuador and Tanzania.

Table 10: Current QAP Collaboratives, June 2006

Country	Topic	Status 6/06	No. of sites
Benin	EONC	16 th month	15 sites
Ecuador, Honduras, and Nicaragua	Latin American regional EOC collaborative	Ecuador: 34 th month Honduras: 31 st month Nicaragua: 33 rd month	Ecuador: 12 out 22 provinces Honduras: 5 out of 20 departmental areas Nicaragua: 14 out of 17 SILAIS
Nicaragua	PHI	33 rd month	6 original + 8 expansion hospitals = 14 hospitals
Niger	PHI	34 th month	17 original + 15 expansion sites = 32 sites in 7 of 8 regions
Niger	EONC	5 th month	28 sites in 7 of 8 regions
Russia	HIV/AIDS care, treatment, and support	19 th month	Multiple facilities in 4 territories
Russia	FP for PLWHA	3 rd month	Multiple facilities in 4 cities
Rwanda	PMTCT	35 th month	16 original sites + 21 expansion sites = 37
Rwanda	Malaria	36 th month	23 original sites + 31 expansion sites = 54
Rwanda	ART	23 rd month	15 sites
Tanzania	PHI-Pediatric AIDS	20 th month	7 original sites + 15 expansion sites = 22
Tanzania	FP	Ending in July 2006	9 original sites + 6 expansion sites = 15
Uganda	ART	5 th month	57 sites

Activities and Results

Collaboratives Results Documentation

During the past year, this activity, implemented with subcontractor EnCompass, LLC, has continued to help the project document and learn from its implementation experience. The following products and results were achieved:

- Two short papers for USAID were developed: a 12-page synthesis of the collaboratives concept and its adaptation and contributions to improving care in developing countries; and a 3-page overview summary of the collaboratives model. These papers were prepared to share, in summary form, how the model has evolved, the challenges it faces, the lessons learned, and its contributions in the countries where collaboratives are operating.
- A paper documenting the monitoring of collaboratives was reviewed by QAP and finalized, but has not yet been shared with collaborative managers.

- A methodology for field data collection was developed in order to seek answers to deeper questions, explore aspects of the implementation of collaboratives that were less understood, and validate reported results. During this past year, the budget and general timeline for this work were agreed upon, field visit countries were identified, and the scope of work and data collection instruments and protocols were finalized for field evaluations that will begin in August 2006.
- A “Collaboratives Learning Week” was organized and held June 19-23, 2006. QAP field staff from nine countries came together with headquarters staff for an intensive meeting to share their experiences and insights about implementing collaboratives. Through small group and plenary sessions, the discussions illuminated the similarities and differences in implementing collaboratives and provided opportunities to document in more depth information on issues raised and lessons learned from implementation. Field visits to explore specific issues in particular countries in more depth were also scheduled so that staff could prepare for the evaluation visits.

Documenting the work of collaboratives has been challenging at a distance. Collaborative managers are busy managing their collaboratives, and it has been difficult to obtain detailed information about implementation on an ongoing basis. Both the “Collaboratives Learning Week” and the planned field data collection in selected countries are expected to move this activity forward in Year Five.

Field Evaluations of Collaboratives

An evaluation protocol for conducting field evaluations was developed and finalized through discussions among QAP, EnCompass, LLC, and USAID. The evaluation protocol includes a description of the evaluation objectives, methods, data to be collected, data sources, and data collection techniques. The field visits will obtain and analyze information on the following elements:

- 1) Documentation and review of the QAP improvement plan and its implementation
 - Evaluate extent to which evidence is used to develop the QAP implementation plan
 - Detailed description of the scope of the collaborative
 - Provide national/regional context for the collaboratives
 - Provide descriptive information on what the teams are actually doing
 - Document steps taken to test improvements
 - Explore variations in how collaboratives have been implemented
 - Review cost of program implementation
 - Document spread and scale-up of improvements
- 2) Evaluation of the outcomes of the QAP improvement plan
 - Document the results of individual teams
 - Understand the roles of collaboratives stakeholders
 - Identify and verify significant improvements in the quality and outcome of care
 - Evaluate the sustainability of the improvements supported by QAP

During field visits, information will be obtained from collaboratives’ records, direct observation, interviews, and other data collection methods involving team leaders, team members, MOH staff (national and district level), donor organizations, NGOs, healthcare facilities, healthcare providers, community members, coaches, country managers, and QAP staff. Each country assessment team will be composed of a senior QAP staff member who has not been directly involved in the collaborative being evaluated (in order to avoid potential biases), an evaluation expert from EnCompass, and a local consultant.

Seven collaboratives will be evaluated out of QAP-supported collaboratives in Africa (Rwanda, Tanzania, Niger and Uganda), Latin America (Nicaragua and either Honduras or Ecuador), and Russia. Operational arrangements were successfully finalized for the initial field test and pilot evaluation of the methodology and instruments in Tanzania, which will take place through an initial visit in August 2006. The rest of the field evaluations will take place in the third and fourth quarter of calendar year 2006 and early 2007, if necessary.

Impact of Niger PHI Collaborative on Quality of Malaria and Pneumonia Care for Children Under Five in Six District Hospitals

QAP began operations research (OR) in January 2005 to evaluate the effectiveness of the PHI collaborative for improving malaria and pneumonia case management in district hospitals to compare the collaborative approach to traditional clinical content training for improving quality of malaria and pneumonia care. Baseline data were collected and analyzed in 2005 for three study groups (PHI intervention group, training only control group A, and no intervention control group B). A formal baseline data report has been generated that reveals poor recognition of and case management of severe pediatric and neonatal febrile illness in sampled district hospitals. In the spring of 2006, pediatric malaria and pneumonia case-management training was conducted on-site by consultant pediatricians in the PHI intervention group and in the training-only control group A, per the study protocol. Final data collection will begin in the fall of 2006, and a final report is anticipated in early 2007.

Validity of EOC Collaborative Self-Assessment in Ecuador

This study is quantitatively documenting the validity of self-assessments of compliance with standards made by CQI teams to monitor changes in quality of care. The aims to identify factors associated with higher validity of self-assessments (such as experience of the team, training received, size of the facility, etc.) and identify ways to improve the validity of team self-measurements of compliance with standards. The study also seeks to develop a practical method and tools that can be applied by provincial QA facilitators for periodic measurement of the validity of data of CQI teams' self-assessments and to estimate the cost of periodic supervision of the validity of CQI teams' self-assessments. Data collection instruments have been developed and field-tested. Four data external evaluators were hired, trained, and standardized in measuring the validity of self assessments. The external evaluators achieved a 90% level of agreement with the gold standard before they began data collection in hospitals, starting in June 2006. Data collection, involving a sample of records rated by CQI teams during the previous year, will continue through September, with data analysis to begin by November.

Sequential Validity and Feedback of Self-Assessment in the Tanzania PHI-Pediatric AIDS Collaborative

The concept paper for this study is under revision, based on feedback from the QAP operations research committee. If approved, the study would begin in late 2006.

Directions for FY07

The proceedings report from the Collaboratives Learning Week Meeting will be finalized by August and distributed to all meeting participants. A series of reports will be developed that summarize the main lessons relating the key aspects of collaboratives: start-up, learning sessions, quality/process improvement methodology, sharing mechanisms, spread phase of collaboratives, and institutionalization and sustainability of improvements. The field evaluations in seven countries will be completed, and a field evaluation report produced for each country visited. The Niger study of the impact of the PHI collaborative and the Ecuador self-assessment validity study will both be completed in Year Five.

3.2 Computer-Based Training

Background

QAP developed, in collaboration with the WHO Department of Child and Adolescent Health, a computer-based version of the IMCI course that reduces the training time from 11 to six days and requires only four facilitators, rather than the six usually required for the 11-day course. The computer-based training (CBT) program is intended to be used in combination with clinical practice with a qualified instructor. It can be

used as a core learning tool within in-service or continuing education (or refresher) training courses, as well as within pre-service academic programs for doctors, nurses, and other health professionals.

An early version of the CBT program was field-tested and evaluated in Uganda in 2000. Results showed that participants who used the CBT program earned the same scores on post-training knowledge tests and the same scores later during field compliance observations as those who were taught in traditional classroom settings. CBT training was also found to be less costly than the standard classroom training, and therefore more cost-effective.

In Year Three, QAP completed an improved version of the generic IMCI CBT, responding to many concerns raised in the original and subsequent test applications. The revised CBT teaches health workers the effective management of sick children between one week and five years of age. It also emphasizes the prevention of disease, promotion of appropriate feeding practices, and communication with caretakers. The updated IMCI CBT program mirrors the standard course more closely and allows for a simulated environment. The program provides instruction in a user-friendly self-paced format that is intended to sustain participants' interest. It also explains how to use the program for those without previous computer experience. A Spanish version of the IMCI CBT, tailored to the IMCI program of the Ministry of Health of Bolivia, has also been developed, modeled on the updated generic English CBT.



Activities and Results

Generic IMCI Field Test in Kenya

In June and July 2005, a field test of the actual effect of the generic IMCI CBT product relative to the standard classroom method was carried out in Kenya. The field test was carried out by ARTT International, one of QAP's subcontractors, in cooperation with the Kenya Ministry of Health and WHO. The evaluation compared the effectiveness and cost of the CBT training program to the standard program in Kenya.

Forty-nine providers who wanted to take IMCI training were identified by the MOH and randomly assigned to either the standard or CBT session. The two sessions were held sequentially, the standard session during June 6–16, 2005, and the CBT session during June 27–July 2, 2005. Twenty-three trainees completed the standard training, and 25 completed the CBT training.

The effectiveness of the two courses was essentially the same. Using an equivalency statistical test, the standard course trainees and CBT course trainees were not different on either an IMCI knowledge test or in their observed IMCI performance with two standardized patients after the course. However, budgeted costs per trainee for the entire training (course plus follow-up) were less for the CBT than for the standardized training, averaging about \$1,870 for the standard program and \$1,640 for the CBT program, a reduction of about \$230 (or 12%) per trainee. This result of equivalent effectiveness but lower costs confirms the findings of a previous study using an early version of the CBT program, and leads to the conclusion that the CBT course is more cost-effective than the standard course.

Completion of the Spanish IMCI CBT

The revised version of the Spanish IMCI was delivered to QAP by subcontractor Dragonfly Communications in November 2005 and then sent to the Ministry of Health of Bolivia and QAP's consultant in Bolivia for review. Final revisions on the Spanish version of the CBT course were prepared by the Ministry of Health in Bolivia and shared with QAP in April 2006. QAP is now working with Dragonfly to finalize incorporation of the final edits and production of the master CD-ROM.

Follow-up of Spanish TB CD-ROM

In Year Four, the MOH expressed interest to QAP in documenting and evaluating the impact of the Tuberculosis CBT developed by QAP and the MOH in 2003. The tuberculosis CD-ROM, tailored to the Bolivia National TB Program, has been used throughout Bolivia, and reproduced beyond the original 1500 copies provided by QAP. Following a visit by Jorge Hermida in February 2006, a short survey was sent to several Departmental Secretariats of Health (SEDES) to inquire as to their use of the TB CBT. SEDES in Oruro, Cochabamba, Potosi, Santa Cruz, and several networks from La Paz responded. All of them have been using the CBT to train doctors, nurses and auxiliary nurses since early 2004. Even though the National TB Program published and distributed a guide for the use of the CD-ROM, there have been wide variations in the duration of training among the SEDES, ranging from a few hours to an entire week. Approximately a third of SEDES said they have evaluated the training through pre-post tests, but none had the results of the evaluation available. Eighty percent (80%) of respondents said personnel competence “improved a lot” as a result of the training, and the remaining 20% say it improved “modestly”. When asked if training with the CD-ROM was either “easy”, “easy but requires help”, or “quite difficult”, 100% said it was “easy but requires help”. We do not know if the SEDES that did not respond did so because they have not used the CD-ROM or for a different reason.

QAP has submitted a Scope of Work to USAID/Bolivia to document the extent of current use of the Tuberculosis CD-ROM by MOH facilities, Universities, and healthcare personnel of the Armed Forces and assess the impact of the use of the CD-ROM on knowledge and skills of MOH personnel. QAP would also support the National TB Program to implement a program of using university students trained through the CBT to work as individual DOT supporters for TB patients. QAP also proposed to work with JSI’s Health Services Quality of Care activity to assure the implementation of quality DOT services in the municipalities in the USAID coverage area, through a collaborative approach that includes in-service training with the CD-ROM and continuous team-based process improvement.

Directions for FY07

QAP will finalize the generic IMCI CBT User’s Guide and disseminate it with the CD-ROM to IMCI country program managers and USAID cooperating agencies. The Spanish IMCI CBT will be finalized and sent to Bolivia for reproduction and dissemination, to accelerate IMCI training throughout the country. While USAID/Bolivia has agreed to QAP’s proposed scope of work for follow-on work related to the TB CBT, the Mission has recently adjusted its strategic objectives and programs, concentrating on work with the NGO community, selected municipalities, and universities. This will probably result in a need to adjust QAP’s proposed activities.

3.3 Mainstreaming Health Systems Strengthening Initiative

Background

The purpose of the Office of Health, Infectious Diseases and Nutrition’s Global Mainstreaming Health Systems Strengthening Initiative is to find new, cost-effective ways to put the combined knowledge, expertise, and tools from USAID’s health system strengthening projects at the service of its large bilateral health service delivery projects and to improve these projects’ capacity to achieve impact on USAID’s strategic objectives. QAP is one of four Global Health projects chosen to take part in this initiative; the others are the Partners for Health Reform plus (PHR*plus*), the Rational Pharmaceutical Management Plus (RPM+), and MEASURE Evaluation projects. QAP’s first activity, begun late in Year Three, was to participate in the development of a health systems assessment instrument, which is designed to provide a description of the health system and its challenges and identify issues and improvements that could be addressed by USAID mission initiatives.

Activities and Results

Development of the Health Systems Strengthening Assessment Modules

The health systems strengthening (HSS) assessment methodology is an indicator-based approach for rapid assessment of the health system, using secondary data, document review, and stakeholder interviews. The primary client and audience for the assessment and its ensuing recommendations is the USAID Mission in the assessment country. The health system assessment tool is designed to allow users to diagnose health systems performance by identifying system strengths and weaknesses, and then to develop strategies and recommendations based on an understanding of priorities and programming gaps in the country.

The manual developed by the HSS partners for the initial field test of the methodology offered guidance on: planning the assessment, questions for conducting the assessment, synthesizing findings, and organizing the assessment report. The first version of the manual included a core module to provide a general description of the health system environment plus modules on six technical areas: health financing, pharmaceuticals, stewardship/governance, private sector, human resources/health facilities, and health information systems.

Following the Angola pilot test, the assessment tools were revised by a team of the HSS partners. QAP collaborated on revising the human resources module and drafted a new module on service delivery that incorporated some of the health facilities topics previously covered by the human resources/health facilities module. A second pilot test was conducted in Benin in April 2006 (see below). QAP participated in a second round of revisions based on feedback from the Benin assessment team, again focusing on the human resources and service delivery modules. In addition to drafting the revisions of the two modules, QAP also contributed to the revision of the second chapter “Overview of the Approach,” in order to insert a clearer conceptual framework, and the contribute to the chapter on summarizing conclusions and prioritizing recommendations.

Health System Strengthening Assessment Field Test in Angola

In August 2005, representatives from QAP, PHR*plus*, and USAID participated on a three-person team to assess the Angolan health system, as well as to pilot test the Mainstreaming Initiative’s HSS assessment tools in Angola. The assessment’s purpose was to create a basic profile of Angola’s health system in order to help the USAID Mission to better understand how to incorporate HSS activities and strategies into its health portfolio.

Ya-Shin Lin, of QAP, tested the human resources/health facilities and health information systems modules. The team delivered a draft report to the Mission that included recommendations for HSS activities in the context of the Mission’s proposed strategy statement, the Africa Bureau’s new strategic framework (in which Angola is classified as a fragile state), and synergy with other donor initiatives. The team’s key findings (summarized in Box 4) and recommendations were presented at a stakeholder workshop where small groups worked to review and provide feedback.

Box 4. Angola: Health System Strengthening Assessment Findings

Strengths: Quantity of nurses; MOH and donor plans to increase staff capacity; implementation of some norms and guidelines (IMCI and maternal health); public - private partnerships in health; user fees that allow health facilities to purchase needed inputs (drugs, supplies, fuel); dedication of public sector health staff.

Weaknesses: Lack of human and institutional capacity; lack of supervision; lack of basic inputs for service delivery (e.g., supplies, drugs, equipment, electricity, potable water); insufficient public health financing; and user fees charged by some public facilities.

Opportunities: Post-war transition period - Angolans open to change, anxious for improvement; young population (60% of Angolans are under the age of 18) that has a shorter memory of the war; elections in 2006; Angola’s long-term economic outlook is very positive; and other donor investments in health system strengthening that are in progress or planned (EU, UNDP/GF, WB) with similar goals and strategies.

Threats: Elections in 2006 could generate a flurry of facility construction that is not part of a rational plan or part of the health budget for recurrent costs; and the country’s cost structure is exceptionally high.

QAP arranged for the translation to Portuguese of the assessment report. The final version of the assessment report in Portuguese was submitted to the Mission in May 2006.

Benin Health System Strengthening Assessment

In April 2006, Lynne Miller Franco participated on behalf of QAP as part of a four-person team, including Karen Cavanaugh, USAID/Washington; Grace Adeya, RPM+; Alphonse Bigirmana, MEASURE Evaluation, to conduct a rapid assessment of the health sector in Benin. The assessment was intended to assist the Ministry of Health and USAID in identifying strengths and weaknesses in the health system and providing reflections on priority areas for health systems strengthening, and to field test the revised health systems strengthening assessment tool, including the new Service Delivery module developed by QAP. Dr. Franco was responsible for applying module 7 (service delivery) and module 2, the core module which includes a description of the overall health system and background information on Benin.

The team reviewed documents and interviewed about 50 stakeholders at central, intermediate, and peripheral levels. The team informally presented preliminary results to the Minister of Health and to the Technical and Financial Partners group on separate occasions, and conducted a formal half-day feedback workshop with about 50 participants. General, preliminary findings showed that the health system is well-structured, and policies, norms, protocols, strategies are developed for most of the areas assessed. However, systems performance (access, quality, efficiency, sustainability, equity) is not adequate to meet the healthcare needs of the population. Problems related to human resources (lack of accountability, badly aligned incentives) and inadequate/precarious financing inhibit the system from reaching its potential. The final report is still under development.

Routine Health Information Network International Workshop

QAP was asked to participate in the planning and implementation of the Third International Routine Health Information Network (RHINO) Workshop, the theme of which was *Information for Action: Facility and Community Focus*. The workshop was held Feb. 26-March 3, 2006 in Chiang Rai, Thailand. QAP's Training Director, Thada Bornstein, participated as the coordinator of the cross-cutting issue, Quality of Services. She made a plenary presentation on Quality of Care as an introduction to the issue and led a breakout session on Quality of Care. QAP also contributed a concept paper on Quality of Care authored by David Nicholas that was included in participant materials. Ms. Bornstein was assigned to the Hospital group for the field work and contributed to a post field work discussion. QAP also contributed to workshop outputs, including recommendations for improving routine health information systems at the first level of care, i.e., community and facility level, and the agenda for further research and development of improved routine health information system performance at those levels. The Quality of Care concept paper and presentation have been posted to the RHINO website (<http://www.rhinonet.org/>).

Support to the Child Survival and Health Grants Program

QAP presented the collaborative approach to the CORE Group's annual meeting in April 2006. Discussions began on the development of a collaborative jointly sponsored by QAP and a CORE member, to begin in early FY07.

Directions for FY07

Plans are underway for the design and implementation of a community-oriented collaborative to be undertaken by QAP and one or more CORE members. The topic(s) will focus on priority maternal and child priority health problems. After selection of the CORE members in September, the collaborative should be launched in early FY07.

3.4 Operations Research

Table 11 lists the status of operations research studies the project has conducted since July 2002, including those completed in prior years and already reported in previous annual reports. The table also lists studies under development and approved studies that have since been cancelled. The narrative that follows describes the progress to date of ongoing studies and reports key results of studies completed during Year Four.

Table 11: Status of Operations Research Studies, June 2006			
	Location	Study Name	Status
OR Studies Completed or In Process			
1	Global	HIV and infant feeding: Compilation of program evidence	Completed
2	Multi-country	Collaboratives documentation and evaluation	Underway
3	Benin	Safe motherhood studies: Results from Benin	Completed
4	Ecuador	Safe motherhood studies: Results from Ecuador	Completed
5	Jamaica	Safe motherhood studies: Results from Jamaica	Completed
6	Rwanda	Safe motherhood studies: Results from Rwanda	Completed
7	Benin, Ecuador, Jamaica, Rwanda	Measuring the competence of SBAs	Completed
8		Timeliness of hospital care for obstetric emergencies	Completed
9		Quality of obstetric care in 14 hospitals	Completed
10		Comparing methods to determine provider attendance	Completed
11		Factors predicting partograph performance	Data analysis
12	Bangladesh	Rapid assessment of tuberculosis system	Completed
13	Cambodia	Treating TB in the private sector	Completed
14	Ecuador	Scale up of CQI in Free Maternity Program	Completed
15	Ecuador	Develop maternal health questions for ENDEMAIN national health survey	Completed
16	Ecuador	Validity of self-assessment in EOC collaborative	Underway
17	Ecuador	Generate demand for quality maternal care	Feasibility study complete; full study just initiated
18	Jamaica	Impact of PMTCT program on mother-child pairs	Completed
19	Jamaica	Improving process of maternal mortality surveillance	Completed; article submitted for publication
20	Kenya	Evaluation of cost and effect of IMCI CBT	Final draft report in editing
21	Laos, Philippines	Proper application of malaria Rapid Diagnostic Tests	Completed
22	Nicaragua	Mother-Baby Program as focused accreditation success	Underway
23	Nicaragua	Improved measures of SBA competency	Final report in editing
24	Niger	Evaluation of PHI malaria collaborative	Underway
25	Russia	Situational analysis of TB-HIV Co-infection	Completed
26	Rwanda	HIV stigma study	Data analysis
27	Rwanda	ARV adherence study	Data analysis
28	Rwanda	Human resources assessment to scale-up HIV/AIDS care	Three phase reports completed and published; technical summary report in review; policy summary in preparation
29	South Africa	Effectiveness of TB DOTS supporters	Completed
30	South Africa	Accreditation and regulatory options	Completed
31	South Africa	Functional analysis of Soweto PMTCT programs	In review for publication
32	South Africa	Rapid assessment of ART	Complete; reporting in editing

33	Tanzania	Job aids for counseling HIV+ mothers on infant feeding	Report in preparation
34	Tanzania	HIV stigma study	Data analysis
35	Zambia	HIV/AIDS workforce study	Completed
36	Zambia	Health worker performance-based incentives study	Completed; report in editing
37	Zambia	Development and testing of malaria RDT job aids	Underway
Potential OR Studies under Consideration			
1	Eritrea	Impact of surgical antibiotic prophylaxis	Proposal in preparation (using data collected under TASC2 project)
2	Tanzania	Sequential validity of self-assessment in PHI collaborative	Concept paper in revision
3	Tanzania	Evaluation of national scale-up of infant feeding counseling materials for HIV+ and HIV- mothers	Concept paper in preparation
Cancelled OR Studies			
Multi-country		Quality of TB care and lab services	TB group did not approve study's implementation
Eritrea/Jamaica		Low-cost measures of quality of care for maternal complications	Proposed methodology proved too complicated and costly
Jamaica		Community follow-up of obstetric emergencies	Phase 2 of study not approved due to lack of scientific evidence of health impact of proposed intervention
Kenya		Improving client purchases of anti-malarials	Cancelled due to lack of assurance of ACT supply
Zambia		HIV health worker training study	Mission did not approve study's implementation

1. Global: HIV & infant feeding: Compilation of Program Evidence. This report was completed in Year Two and published in July 2004.

2. Multi-Country: Collaboratives documentation and evaluation. A technical meeting of all QAP staff engaged in collaboratives was held in Bethesda June 19-23, 2006 to review the experiences of all QAP's collaboratives to date. Field evaluations of selected collaboratives will start in Tanzania in August, and up to seven field assessments will be carried out in Year Five. Other potential countries include one or two of the three Latin American EOC collaborative countries, Rwanda, Uganda, Niger, and Russia. The technical approach for the field evaluations was reviewed and refined during the collaboratives technical meeting.

3. Safe motherhood studies: Results from Benin. Completed and previously published.

4. Safe motherhood studies: Results from Ecuador. Completed and previously published.

5. Safe motherhood studies: Results from Jamaica. Completed and previously published.

6. Safe motherhood studies: Results from Rwanda. Completed and previously published.

7. Measuring the competency of skilled birth attendants. Completed and previously published.

8. Timeliness of hospital care for obstetric emergencies. Results from Benin, Ecuador, Jamaica, and Rwanda. This study was completed and a report published in March 2006. Direct observation of 859 women arriving for delivery and expert review of medical records of 383 obstetric emergencies provided data from 14 hospitals about the timeliness of care for postpartum hemorrhage, eclampsia, sepsis, obstructed labor and post-abortion complications. Findings varied across countries and emergencies, but not across hospital types. The shortest time to administer definitive treatment was oxytocin for postpartum hemorrhage, and the longest was antibiotic for sepsis and C-section for eclampsia. The

interval from arrival to a professional evaluation average 30 minutes over all arrivals, and surprisingly was longer during the day on weekdays than at nights or on weekends. An article is being prepared for journal submission.

9. Quality of obstetric care in 14 hospitals: Results from Benin, Ecuador, Jamaica, and Rwanda. This study was completed and a report published in March 2006. Trained observers recorded whether internationally recommended tasks were performed to standard for 245 women during labor, delivery, and immediate postpartum care for the mother and newborn. The frequency of labor monitoring was well below the internationally recommended rates in all countries and hospitals. Incorrect use of the partograph was observed over half the time. Performance of 17 intrapartum tasks, including during third stage labor, varied substantially, with many tasks performed correctly over 80% of the time, but three performed infrequently: suctioning newborn (22%), skin-to-skin contact (29%), and provider washed hands (33%). The quality of immediate postpartum care varied widely by country. This study confirms and extends the sparse published literature on the topic.

10. Comparing two methods for determining provider attendance during normal labor and delivery: Benin, Ecuador, Jamaica and Rwanda. This report was published in April 2006. Two methods were used to identify the specific providers who attended the 245 deliveries described in OR study #9 above – Quality of Obstetric Care in 14 Hospitals. The two methods did not agree 54% of the time. Counting the providers identified in either method (“combined method”) yielded results that were superior to either method by itself, being superior to one method 37% of the time, and superior to the second method 23% of the time. We estimated that providers were not identified by either method only about 2% of the time, based on assumptions of independence.

11. Factors predicting partograph performance. This study is analyzing the factors that are related to the correct use of the partograph and the frequency of labor monitoring in the cases from OR study #9 above from Benin, Ecuador and Rwanda. Data from the SBA Competency study (OR study #7 above) on the knowledge and skill level of attending providers, the motivation of providers, the duration of labor in the hospital, and other factors are being incorporated into the analysis. Our main hypothesis is that increased competency with partographs, as measured by competency testing, is associated with increased performance in their use and increased frequency of labor monitoring.

12. Bangladesh: Rapid assessment of tuberculosis system. Completed and previously published.

13. Cambodia: Private sector TB. Completed and previously published.

14. Ecuador: CQI Scale Up in the Free Maternity Program. Completed and published in Year Three.

15. Ecuador: Developing questions on maternal health for ENDEMAIN national health survey. QAP completed data analysis of the 2,798 interviews with women who had given birth during the two years prior to the survey. Of this group, 2,065 women gave birth in a health facility, while 733 gave birth at home. QAP analyzed responses to the 20 questions relating to factors that influence women’s decisions about where to give birth and contributed a chapter to the final report that was published by the Government of Ecuador in late 2005. The responses indicated that four factors (cost, access, cultural sensitivity, and perceived trust and quality) had a major impact on the selection of a delivery site (home birth or health facility, which facility). Even though Ecuador has a national free maternity program, 29% of the women opting for a home birth said costs were the most important factor, and of those delivering in a facility, 39% said that costs were the most important consideration in which facility they selected.

16. Ecuador: Validity of self-assessment in the EOC collaborative. This study will test the hypothesis that self-assessments by the EOC teams in Ecuador are valid estimates of the actual performance of the teams over time. The medical records of the same cases used by the collaborative quality assurance teams to self-assess their own performance are being retrospectively re-audited by expert clinicians to determine if the self-assessed data agrees, and if not, the nature of the errors (false positive or false negative).

17. Ecuador: Generate demand for quality maternal care. This study will test the hypothesis that improving the cultural adequacy of obstetric care in public health facilities will increase perceived quality of obstetric care, which in turn will increase demand for and utilization of public health facilities for obstetric care by women who are currently giving birth at home. In 2005, QAP and the Department of Health of Tungurahua Province pilot tested a method for improving the cultural adequacy of obstetric care in public health facilities. On the basis of the pilot, a new study was proposed to document the impact of cultural adaptation of obstetric care on demand for institutional deliveries. The study will include one intervention hospital and one control hospital at the district level in four provinces, representing different ethnic and geographic areas of the country. The study was launched in June 2006.
18. Jamaica: Impact of a PMTCT program on mother-child pairs. Completed and previously published.
19. Jamaica: Improving the process for maternal mortality surveillance. This study was completed and two articles were prepared for submission to journals during the past year, one on underreporting in the current maternal deaths surveillance system and the other on recent trends in maternal mortality in Jamaica. A RAMOS methodology was used to identify all deaths to women of child-bearing age in Jamaica and then identify which of those deaths was related to pregnancy using extensive investigation and interviewing. By 2000, only 80% of maternal deaths were being reported. Underreporting was associated with not having a post mortem, dying in the first trimester, and ineffective surveillance in some geographic areas. A longer interval from pregnancy termination to death increased the odds that the death would not be reported, increasing from 3.5 in the first week to 6.05 between 7-41 days postpartum. Declines in direct obstetric deaths since the 1980s are probably associated with improved surveillance, improved access to referral obstetric care and use of selected clinical protocols. During the 1990s there was an increase in indirect deaths from HIV/AIDS, cardiac disease, sickle cell disease, and asthma that balanced the decline in direct deaths.
20. Kenya: Evaluation of cost and effect of IMCI CBT. This field test of the revised IMCI computer-based training was conducted in Kenya in June-July, 2005, comparing the cost and effectiveness of the CBT training to the standard classroom training. Forty-nine clinicians untrained in IMCI were randomly assigned to the CBT or the standard course. Each trainee took a written pre-and post-test, and was judged on compliance with IMCI standards in the case management of two standard simulated patients by expert observers. The CBT and standard course trainees were statistically equivalent in the post-test, in the gain from pre-to post-test, and in the compliance with IMCI standard score. However, the budgeted cost per trainee was \$230 less for the CBT course, a 12% decrease from the standard course, and so the CBT course was judged to be more cost-effective, a result that confirmed an evaluation of an earlier version of the CBT version in Uganda.
21. Laos, Philippines: Proper application of malaria rapid diagnostic tests. This study was completed in October 2004, and a final report submitted to WHO, which commissioned the study. The report was published on the WHO website in January 2005.
22. Nicaragua: Mother-Baby Program as focused accreditation success. This study was initiated in November 2004 to document whether the prior reported success of the Mother-Baby Friendly Hospital Initiative in Nicaragua had continued and to ascertain the extent to which certain key aspects of the program contributed to its success. A major portion of the data collection was completed by May 2005, and a preliminary report drafted. The program has continued its success in promoting quality of care in infant feeding and expanded beyond hospitals to include health centers, health posts, health districts, and municipalities in recent years. The program has enjoyed the support of the Ministry of Health, which carries out certification and re-certification, and of national laws supporting breastfeeding. Because of a physician strike, work on this study was stopped for six months and only resumed in July 2006. Data on low-cost self-assessment carried out by the health facilities will be collected in August 2006 and incorporated into the final report. The findings will be reported in an end-of-project international mini-

conference under the direction of UNICEF/Nicaragua in the fall of 2006, along with the new UNICEF guidelines for the sustainability of the Baby Friendly Programs.

23. Nicaragua: Improved measures of SBA competency. QAP shortened and refined the skilled birth attendant knowledge test and consolidated the skills evaluations used in the four-country safe motherhood study. During July-August 2005, QAP worked with the Ministry of Health, UNICEF, CARE, and PAHO to apply the revised instruments in a large-scale evaluation of SBA competency in Nicaragua, involving 1,358 medical and nursing personnel who attend deliveries in 44 health centers in 13 SILAIS and in 20 hospitals across the country. The report in Spanish, for dissemination within Nicaragua, was completed and presented to the Minister of Health in June. It is now being translated to English for publication as an operations research results report.

24. Niger: Evaluation of PHI malaria collaborative. This study, initiated in February 2005, is comparing the impact of the Pediatric Hospital Initiative malaria collaborative to no intervention and to traditional quality improvement and technical training on quality of care for febrile illness/malaria for children ages 0–59 months at 6 district hospitals in Niger. It is also examining referral/counter-referral practices between district hospitals and associated health centers before and after implementation of the PHI collaborative and describing case-specific care-seeking behavior of caretakers of febrile children evaluated at facilities with emphasis on trajectory from home to facility. To compare the interventions, the study is assessing both provider performance and system variables. Provider performance during assessment, classification, and treatment is being observed directly. System variables include: delay in attending to client, duration of consultation, administration of antibiotics, availability of oxygen, and availability of needed supplies, lab services, etc. Final data collection is expected to be completed by December 2006.

25. Russia: Rapid assessment of HIV-TB co-infection. Completed and published previously.

26. Rwanda: HIV stigma. Fieldwork for this study has been completed. The study used chart reviews and focus groups comprised of 40 healthcare workers from six urban, semi-urban, and rural health centers in Rwanda. Data from the interviews is still being analyzed.

27. Rwanda: ARV adherence. After a preliminary assessment of 76 ARV patients at the prestigious King Fayçal Hospital in Year Two, this study was expanded in July 2004 to include four sites outside of Kigali. Over 600 patients were interviewed. Data are still being analyzed.

28. Rwanda: Human resources assessment for HIV/AIDS service scale-up. The major components of the national HIV-AIDS care program (including VCT, PMTCT, CD4 count testing, and ART) were investigated to estimate the number and type of health providers involved, the tasks and time required per client in each component, and other key aspects of the system. The study found that, under reasonable assumptions for the HIV prevalence rate, the VCT uptake rate, and the number of providers being trained, the additional number of providers required to meet national targets is very large. One partial solution may be to use providers of lower skill levels to do many of the required tasks. Reports for each of three study phases were drafted and presented to the MOH and USAID in May 2005. Based on their feedback, the draft reports were revised into a final report that was presented to authorities in Rwanda for review in July 2005. The three individual phase reports were edited and published this year. A summary technical report drawing key findings from the three reports has been drafted and is in review. A summary policy report is being drafted.

29. South Africa: Effectiveness of TB DOTS supporters. Completed and published previously.

30. South Africa: Accreditation and regulatory options. Completed and published previously.

31. South Africa: Functional analysis of Soweto PMTCT programs. The study's goal was to describe and analyze the PMTCT model program being implemented by the Perinatal HIV Research Unit at Baragwanath Hospital in Soweto, South Africa, to determine the key elements that have contributed to its

success and the potential for replicating this model as a best practice. The study is analyzing several specific program components, including: usage data from program clinics; service quality of testing, dispensing, and pharmacies; quality of care during pre- and post-counseling; staff roles, knowledge, motivation, and satisfaction; client knowledge and satisfaction. The draft final report that was prepared and circulated a year ago is still under review by the various study stakeholders including South African authorities.

32. South Africa: Rapid assessment of ART. This rapid assessment was carried out in late 2005 and the findings presented to the National Department of Health. The final report has been completed and is in editing.

33. Tanzania: Evaluation of counseling job aids and take-home materials on infant feeding for HIV-positive mothers. This multi-faceted intervention aimed to improve the quality of counseling and the infant feeding practices of HIV-positive and HIV-negative mothers to be more in line with WHO guidelines. It developed pictorial job aids and posters that health counselors used to counsel mothers of any HIV status about proper infant-feeding options, related take-home materials for the mothers, and a counselor training course. This study evaluated the impact of the intervention on a cohort of 59 mothers and infants, 30 in the intervention group and 29 in the control, both HIV-positive and HIV-negative. In-depth home interviews and observations were carried out with all of the mothers and a second follow-up home interview was then conducted with a subset of those originally interviewed and observed. A final draft was circulated and is currently in revision. Some preliminary results indicate that the intervention counselors used the materials with all the clients and were enthusiastically positive about them and that intervention mothers reported higher quality counseling (e.g., more demonstrations). Intervention mothers had also kept and spontaneously referred to the take-home materials and were more knowledgeable than the control mothers about options and best practices.

34. Tanzania: HIV stigma. Interviews with providers in several clinics obtained data about their knowledge of HIV, their knowledge and fears about transmission of HIV in the clinic setting, and their attitudes and values about stigma towards HIV patients. Preliminary findings show that providers were familiar with various modes of transmission and ways to prevent the spread of HIV, although a significant portion stated that instruments used on HIV patients should be used and sterilized separately, and less than half of providers selected not re-capping needles as a way to decrease the risk of infection. The majority of providers expressed at least one negative attitude towards HIV patients, such as a desire for separation, isolation, or blame for infection. However, providers also emphasized sympathy toward and a willingness to provide services to HIV patients. Reported fears of infection varied with less than half of providers worried about getting infected at work or putting family and friends at risk of infection. Receipt of HIV training, being male, and being a doctor or medical officer were associated with increased knowledge of HIV and fewer negative attitudes towards HIV patients. There were little to no reports of discriminatory practices by providers or hospitals towards HIV patients. A final report of the analysis is currently being prepared.

35. Zambia: HIV/AIDS workforce. Completed and published previously.

36. Zambia: Health worker performance-based incentives. The incentive program for this study was piloted from February 2004 through March 2005. Final awards and data collection were completed in the two sample districts in March 2005. The data were analyzed and a final report submitted to QAP in October 2005.

37. Zambia: Development and field testing of malaria RDT job aids. This study was recently launched. It builds on the earlier study done by QAP in the Philippines and Laos to develop simplified instructions for malaria rapid diagnostic tests (RDTs) for use by community health workers. Formative research has already been completed, resulting in a revised job aid and orientation program. But widespread RDT use at the community level in Africa raises many issues that we plan to study and resolve: safe blood handling practices, appropriate disposal of medical waste (including sharps), proper storage and handling of the test

kits prior to use, clinical judgment on the part of the community health workers about when to treat based on test results and when to treat presumptively, and what workers should tell patients who are febrile but RDT-negative. QAP is working closely with the National Malaria Control Center in Zambia and WHO on this study.

Directions for FY07

We plan three major objectives for OR in the coming year. First, to generate ten well-done OR concept papers and proposals that will be considered for funding. Three are noted in Table 11. We expect several others related to collaboratives to emerge from the June 2006 technical meeting. Second, to complete and publish final reports on the many studies that are near completion, in addition to pushing forward on the other studies underway. The studies nearing completion include: Collaboratives documentation and evaluation, Factors predicting partograph performance, Ecuador validity of self-assessment in the EOC collaborative, Kenya evaluation of cost and effect of IMCI CBT, Nicaragua Mother-Baby Program as focused accreditation success, Nicaragua improved measures of SBA competency, Rwanda HIV stigma study, Rwanda ARV adherence study, Rwanda human resources assessment to scale-up HIV/AIDS care, South Africa rapid assessment of ART, Tanzania Evaluating counseling job aids and take-home materials on infant feeding for HIV-positive mothers, Tanzania HIV stigma study, and the Zambia Health worker performance-based incentives study. Third, to prepare and submit articles for journal publication based on the completed QAP studies.

3.5 Regulatory Approaches to Quality

Background

QAP continues to seek opportunities and funding for applying licensing, accreditation, certification, and other regulatory approaches to improving healthcare quality. The Nicaragua Mother-Baby Friendly Hospital certification program has persisted for over a decade with largely volunteer evaluation teams and continues to show excellent results. A research study to document factors leading to the success of this program was initiated by QAP in November 2004.

As HIV/AIDS care is expanded worldwide, interest is growing in assuring that the quality of care meets international standards and will be effective. QAP has been involved in discussions with the National Committee on Quality Assurance in the United States to assess the feasibility of applying their self-assessment approaches to certification and pay for performance. Such approaches might be particularly applicable to HIV/AIDS care, and a variant of this approach could be tested in Uganda.

Activities and Results

Nicaragua Mother-Baby Friendly Hospital Accreditation Program Evaluation

A preliminary report was drafted based on the initial data collected in 2005. Additional data on the use of self-assessment by individual hospitals to monitor their own performance was to have been collected in the first part of 2006, but data collection was postponed due to the five-month physicians' strike. Final data collection for the study will be carried out in August 2006. The findings of the evaluation will be presented at a UNICEF-sponsored meeting to be held in Nicaragua in the fall of 2006, in conjunction with the launch of new UNICEF guidelines for increasing the sustainability of Mother-Baby Friendly programs.

Stepped-up Accreditation of ARV Care in Uganda

In conjunction with the Quality of Care Initiative that QAP is supporting in Uganda to expand availability of high quality HIV/AIDS services, QAP proposed a system of "stepped up" accreditation of HIV/AIDS ART facilities in Uganda; this system would build on the government's current system of accreditation of facilities wishing to provide ART, which is based on very minimal standards. This system of "stepped

up” accreditation would evaluate facilities using progressively more stringent requirements in providing ART. Because of the intensity of ART collaborative start-up activities, this activity has been postponed until early FY07.

Directions for FY07

During the next year, we will complete the Nicaragua Mother-Baby friendly study and begin the stepped-up ART accreditation program in Uganda.

3.6 Training

Background

Planning and implementation of training in QA methods is decentralized and determined by each QAP country program. Core training staff in Bethesda provides services to field staff and country programs as requested and responds to requests for short-term training assistance from USAID-assisted countries and cooperating agencies.

Activities and Results

In Year Four, a course on how to conduct quality improvement collaboratives was developed. The Training Director, Thada Bornstein, provided technical assistance to the field program in Uganda by mentoring coaches and assisting in planning for learning sessions. Assistance was also given for planning the evaluation of a large-scale cascade training program on infant feeding in Tanzania.

Thada Bornstein provided technical assistance to the Routine Health Information Network (RHINO) by conducting a plenary session and a break-out session on Quality of Care at their third international conference in Chiang Rai, Thailand and participating in other sessions at the conference. QAP also changed the way core QA courses are made available on the project website, eliminating the need to directly contact QAP Training.

Directions for FY07

In Year Four, in addition to providing technical assistance on an as-needed basis, Training will pilot the collaboratives course and make revisions based on the outcome.

3.7 Technical Leadership/Communication

Background

One of the five major components of the QAP Statement of Work in support of USAID’s Strategic Objectives, technical leadership encompasses the development and dissemination of methodologies, tools, and best practices in the application of QA and human resources management (HRM). QAP fulfills this role by publishing technical reports; presenting project approaches and results at international professional conferences; briefing USAID, donor, cooperating agency, and host country audiences; publishing articles on QA/HRM methods and results in peer-reviewed journals; and operating a project website.

Activities and Results

The project continues to exert technical leadership in the field of quality assurance internationally, demonstrating USAID’s commitment to improving developing country healthcare systems through leadership in applying and adapting the improvement collaborative methodology. During Year Four, QAP more widely disseminated information on 1) its adaptation of the methodology and 2) results from applying the methodology in HIV/AIDS, acute pediatric care, and essential obstetric care to USAID staff, national health authorities, and cooperating agency staff.

Development and Dissemination of Technical Reports and Publications on QA Methods and Results

As shown in Table 12, QAP published on the project website six operations research reports, one technical report, and one evaluation report during Year Four. Manuscripts on the findings from the national assessment of skilled birth attendant competence in Nicaragua and the demonstration phase results of the LAC EOC collaborative was submitted to *The Lancet* in May 2006 for consideration for the journal's upcoming maternal mortality reduction series. Revisions were requested to the SBA competency article and will be submitted in July; the LAC EOC collaborative manuscript was not accepted. A manuscript on the development of culturally sensitive breastfeeding counseling tools in the Kilimanjaro Region of Tanzania was submitted to the on-line peer reviewed journal, *BioMed Central—Breastfeeding*. Revisions requested were made, and the revised article was re-submitted in July 2006. The principal investigator of the Jamaica maternal mortality surveillance study has prepared two articles based on the study and submitted them for publication. Work progressed on another two journal articles: one on the results of the four-country study on timeliness of care for obstetrical complications (third delay study), to be submitted to *The Lancet*, and the other on the pediatric hospital improvement collaboratives in four countries, to be submitted to the *Bulletin of the World Health Organization*.

Table 12: QAP Technical Publications, 7/1/05-6/30/06

Operations Research Reports (Date Published)
Furth R, Gass R, and Kagubare J. 2006. Rwanda Human Resources Assessment for HIV/AIDS Scale-up: Phase 3 Report: Staffing Implications and Scenarios for HIV/AIDS Services Scale-up (June 2006)
Burkhalter B and Jennings L. 2006. Comparison of Two Methods for Determining Provider Attendance during Normal Labor and Delivery: Results from Benin, Ecuador, Jamaica, and Rwanda (April 2006)
Furth, R, Gass R, and Kagubare J. 2006. Rwanda Human Resources Assessment for HIV/AIDS Scale-up: Phase 2 Report: Sample Site Data Collection and Analysis (March 2006)
Edson W, Burkhalter B, Harvey S, Boucar M, Djibrina S, Hermida S, Ayabaca P, Bucagu M, Gbangbadé S, and McCaw-Binns A. 2006. Safe Motherhood Studies—Timeliness of In-hospital care for Treating Obstetric Emergencies: Results from Benin, Ecuador, Jamaica, and Rwanda (March 2006)
Burkhalter B, Edson W, Harvey S, Boucar M, Djibrina S, Hermida J, Ayabaca P, Bucagu M, Gbangbade S, and McCaw-Binns A. 2006. Quality of Obstetric Care Observed in 14 hospitals in Benin, Ecuador, Jamaica, and Rwanda (March 2006)
Furth R, Gass R, and Kagubare J. 2005. Rwanda Human Resources Assessment for HIV/AIDS Services Scale-up: Phase 1 Report: National Human Resources Assessment (October 2005)
Other QAP Reports (Date Published)
Boguslavsky V. 2005. Situational Analysis of the TB-HIV Co-Infection in Russia and Four QAP Project Regions: Samara, Saratov, Orenburg, and St. Petersburg <i>Technical Report</i> (June 2005)
Viteri MA. 2005. Evaluation of the Latin American and Caribbean Maximizing Access and Quality Exchange. <i>Evaluation Report</i> (July 2005)

QAP staff delivered six presentations to USAID and cooperating agencies during Year Four, and QAP work was presented at ten international and regional conferences. QAP had an especially strong showing at the May 2006 Global Health Council (GHC) conference, with sponsorship of one skill-building workshop, two panels, and two round table discussions. QAP reports and CD-ROMs were distributed to GHC participants at URC's conference booth. Additional details are reported in Table 13.

Management of the Project Website

Additional changes were made to the home page design of the project website and the coding of internal pages to make the website fully compliant with website accessibility standards set forth in the Americans with Disabilities Act and required under USAID branding and marking regulations.

Table 13: QAP Participation in Briefings and International Conferences, 7/1/05-6/30/06

Briefings and Presentations for USAID and Cooperating Agency Staff	
6/06: Larissa Jennings presented on QAP's experience with monitoring compliance with essential obstetric care indicators at a technical meeting sponsored by the Prevention of Postpartum Hemorrhage Initiative (POPPHI) held at PATH. The purpose of this meeting was to discuss the strengths and weaknesses of two indicators related to active management of the third stage of labor that have been proposed by POPPHI to be routinely collected from current projects of all cooperating agencies.	
6/06: Maina Boucar and Kathleen Hill made a presentation to the Office of U.S. Foreign Disaster Assistance on "Rapid Expansion of Nutritional Recuperation Services for Children in Government Facilities during the Nigerian Food Crisis and its Aftermath" reporting on the progress to date of the component added to the Niger PHI collaborative, with OFDA funding, to institutionalize nutritional recuperation services within Ministry of Health facilities.	
6/06: David Nicholas, Maina Boucar, Apolline Uwayitu, Victor Boguslavsky, Kim Ethier, Festus Kalokola, and Rachel Jean-Baptiste conducted a briefing at USAID on the results from HIV/AIDS related improvement collaboratives in Rwanda, Russia Tanzania, and Uganda.	
4/06: David Nicholas made a presentation on the collaborative approach at the annual meeting of the CORE Group.	
11/05: David Nicholas made a presentation on improvement collaboratives to members of the CORE Group through its E-luminate webconference series.	
10/05: Bart Burkhalter gave a talk to students at the Bloomberg School of Public Health at Johns Hopkins University on "Operations Research in QA: Past Shoulders, Present Costs, Future Speculations."	
Conference Presentations	
President's Emergency Plan for AIDS Relief, Third Annual Field Meeting, 6/06, Durban	Rachel Jean-Baptiste was invited to present the poster, "Promotion of Continuous Quality Improvement Initiatives During Rapid Scale-up of a National ART Program: The Case of Uganda." Deborah Ash was invited to present the poster, "An innovative training strategy using job aids to support infant feeding in the context of HIV/AIDS," presenting QAP's work in Tanzania. Donna Jacobs presented the poster, "Effective Strategies for Continuous Quality Improvement in PMTCT" on QAP's work in South Africa. Victor Boguslavsky was invited to attend the meeting as part of the official delegation from Russia.
Global Health Council, 6/06 Washington, DC	<p>Jorge Hermida, Kathleen Hill, and Lani Marquez led the pre-conference workshop, "Implementing Best Practices in Essential Obstetric Care Using the Improvement Collaborative Approach."</p> <p>David Nicholas presented the paper, "The Collaborative Approach to Improving ART in LDCs," as part of the panel organized by QAP, Knowing Is Not Enough: Applying Classic Improvement Strategies to Anti-Retroviral Therapy. James Heiby moderated the panel, which also included presentations by Bruce Agins on HIV-QUAL work in Thailand and by Pierre Barker on IHI's HIV/AIDS improvement collaborative in South Africa.</p> <p>As part of the QAP-led panel, Strengthening PMTCT Through Innovative Infant Feeding Counseling Tools, Peggy Koniz-Booher described how the counseling job aids were developed and tested in 2004, with the technical support of URC/QAP and the U.S. Agency for International Development (USAID). WHO's Dr. Constanza Vallenias presented "WHO HIV and Infant Feeding Guidelines and Counselling Tools: Toward Global Utilization." Sebalda C. Leshabari, Muhimbili University College of Health Sciences-Tanzania/University of Bergen-Norway, presented "Operations Research to Test an Integrated Set of HIV/IF Job Aids," presenting the finding of the QAP OR study in Tanzania.</p> <p>Stephen Kinoti led the round table discussion, "Reducing Pneumonia Case Fatality in Malawi through Pediatric Hospital Improvement (PHI)." Ya-Shin Lin led the round table discussion, "Improving Pediatric Hospital Care," presenting the results of PHI collaboratives in four countries.</p>

Gender, Child Survival, and HIV/AIDS: From Evidence to Policy, 5/06, Toronto	Peggy Koniz-Booher gave the plenary address, “HIV and Infant Feeding: An Update on Evidence, Recommendations and Challenges,” at this international conference sponsored by York University.
Third Latin American Congress on Quality of Health Care, 3/06, Mexico City	Jorge Hermida made a plenary presentation at this joint meeting of the Latin American Congress on Quality of Health Care and the 4th National Conference of the Mexican “National Crusade for Quality” (<i>Cruzada Nacional por la Calidad</i>) on the experience of the Latin American essential obstetric care collaborative, since reducing maternal mortality is currently one of the main objectives of the Mexican Government and of its QA Program. During the Congress, the Latin American Society for Quality in Health Care (<i>Sociedad Latinoamericana para la Calidad en Atención de la Salud - SOME CASA</i>) was formally founded and its constitution approved. The mission of this international non-governmental organization is to promote quality assurance in health in the region, with operational links to the International Society for Quality Assurance in Health. QAP was elected a member of its first Executive Board.
HIV/OVC Meeting, 3/06, Windhoek	David Nicholas presented a conceptual framework for looking at and thinking about quality and how to improve it within programming for orphans and vulnerable children, especially those affected by HIV/AIDS.
Third International RHINO Conference, 2/06, Chiang Rai, Thailand	Thada Bornstein made a plenary presentation entitled “Quality of Care” to explain QAP’s approach to quality monitoring at the third international meeting of the Routine Health Information Network (RHINO). The meeting’s theme was “Information for Action: Facility and Community Focus.”
American Anthropological Association Annual Meeting, 12/05, Washington, DC	Steve Harvey presented a paper on QAP’s work on the cultural adaptation of obstetric care in Tungurahua, Ecuador.
American Public Health Association Annual Meeting, 12/05, Philadelphia, PA	Mary Drake presented the paper, “Maximizing opportunities--collaborating for rapid scale-up of quality family planning services” describing the family planning collaborative in Tanzania. Stephen Kinoti presented the posters, “Scaling up Pediatric HIV/AIDS Care in Tanzania” and “An innovative model for capacity development to implement and expand effective pediatric emergency care,” describing the coaching support system developed in Malawi with registrars from the College of Medicine. Rebecca Furth of Initiatives Inc. made the oral presentation, “Human Resources Implications of HIV/AIDS Scale-Up: The Case of Rwanda.”
International Union Against Tuberculosis and Lung Disease (IUATLD), 10/05, Paris	QAP staff led a post-graduate course on quality improvement during the 2005 IUATLD meeting entitled, “Quality improvement and treatment adherence.” Neeraj Kak led the workshop with a presentation on quality improvement in TB. Refiloe Matji made a presentation on strategies to improve treatment adherence. Sadia Parveen presented lessons from QAP’s support in Bangladesh for expanding public-private partnerships in TB and improving supervision. Kim Ethier and Olga Chernobrovkina presented preliminary results from the Russia HIV/AIDS collaborative in the area of TB-HIV co-infection.
International Society for Quality in Health Care Conference, 10/05, Vancouver	Mandy Rose presented the paper, “Improving Pediatric Hospital Care: Affordable, Feasible, Essential.” Steve Harvey presented two papers: “Using client perspectives on quality of care to improve cultural adequacy of obstetric care and promote hospital based childbirth in Ecuador” and “Upgrading volunteer community health worker skills in malaria diagnosis: A job aid for malaria rapid diagnostic tests (RDTs).”

Development of the Collaboratives Extranet

In July 2005, Ya-Shin Lin traveled to Rwanda to train local QAP staff and facility-based teams in the use of the collaboratives extranet software and to begin entering previously collected data and improvement reports on the Rwanda PMTCT collaborative pages in the extranet. The manufacturer of the Instant Intranet Builder software was contracted through two small, fixed price purchase order to make further enhancements to the look and functionality of the extranet in response to feedback from users in Rwanda. During the year, 15 of the 16 original PMTCT sites entered data on the extranet pages for one or more indicators. Although additional indicators were added to the extranet site and team pages created for the expansion sites, only a few of the 21 expansion sites that became active in the PMTCT collaborative at the beginning of Year Four ended up using the extranet, most likely because of the planned closure of the PMTCT collaborative in August 2006.

In June 2006, additional content in Spanish was added to the extranet pages for the Nicaragua PHI collaborative.

Directions for FY07

In Year Five, QAP's communications efforts will focus on development of additional manuscripts for submission to peer-reviewed journals that articulate the methodology and results of QAP-sponsored studies as well as findings from project-sponsored research. Teams in Nicaragua's pediatric hospital improvement collaborative are expected to begin using the extranet. Additional open-access pages will be developed in English to present summary results and tools from the Latin American EOC collaborative and in French to present results and tools from the EONC collaboratives in Benin and Niger.

3.8 Workforce Development

Background

QAP's objective in the area of human resource management (HRM) and workforce development (WD) is to conduct research, technical assistance, and pilot-level demonstrations on a limited number of HRM/WD issues where results of improvements can be obtained in a relatively short period of time and add to the evidence base of effective interventions. Initiatives Inc. is QAP's primary subcontractor; other partners include the Ministries of Health and medical and nursing schools in the countries where we are implementing workforce development activities.

Activities and Results

Human Capacity Development Working Group

QAP continues to participate in the quarterly meetings of USAID's Human Capacity Development Group for the furtherance of collaboration and sharing of knowledge in this field as applied to global health programs.

Research on the Competency of Skilled Birth Attendants in Nicaragua

As an extension of its work in measuring the competence of skilled birth attendants, QAP undertook in the first quarter of Year Four an evaluation of the competence of health personnel responsible for attending deliveries throughout Nicaragua, in collaboration with the Nicaraguan Ministry of Health, CARE, UNICEF and PAHO. Evaluation results will serve as the basis for clinical training and continuous quality improvement efforts. (See further discussion in section 4.2.)

Zambia Performance-Based Incentives Study

The Zambia Performance-Based Incentives study was piloted from February 2004 through March 2005. Final awards and data collection were completed by the two sample districts in March 2005. The data have been analyzed and compiled and a final report submitted to QAP by Initiatives.

Rwanda Human Resources Assessment for HIV/AIDS Services Scale-Up

Data collection for the Rwanda Human Resources Assessment for HIV/AIDS Services Scale-Up was completed in Year Three. Final reports for each of three study phases were presented to authorities in Rwanda in July 2005.

Zambia Study on the Effect of Training on Competence and Performance at the Workplace

This study was planned during Year Three, and all survey tools were developed and local staff identified. Approval by Zambia's Central Board of Health was obtained, but during Year Four the study was cancelled due to lack of concurrence from the USAID Mission.

Directions for FY07

Final reports will be completed and disseminated for the Zambia incentives, Rwanda human resources assessment (summary report and policy report), and Nicaragua SBA competency study.

4 USAID Strategic Objectives

4.1 SO1 Population

Background

QAP's SO1 population group focuses on ways to support USAID population activities by adapting quality improvement approaches to address the needs of population and reproductive health programs. QAP has been actively involved in the USAID Maximizing Access and Quality (MAQ) Initiative since its inception, playing leadership roles on MAQ subcommittees and in planning and implementing the first MAQ Regional Exchange in Latin America. QAP also participates in the activities of the FP/HIV Integration Working Group.

Activities and Results

Maximizing Access and Quality Initiative

QAP CTO James Heiby made a presentation on QAP's work on quality improvement collaboratives at the MAQ Mini-University in October 2005. The MAQ Management and Supervision Subcommittee, of which QAP is a co-chair, has joined forces with the IBP Task Team on Fostering Change, described in the IBP section.

Implementing Best Practices Consortium (IBP)

QAP has been a member of the IBP consortium since 2002 and has contributed to the Strategic Planning Committee and the Electronic Gateway Committee. QAP participated in two IBP meetings in the past year: in November 2005 in Philadelphia and in May 2006 in Washington, DC. Since last year, the focus of QAP's work in IBP has been to contribute to a Task Team of select members from eight cooperating agencies, USAID, and WHO, on fostering change. A document was produced called "Guide for Planning, Coordinating, and Implementing Effective Change, Working Draft for Field Testing." This guide will be tested by IBP members in 2006.

Family Planning Improvement Collaborative in Tanzania

During Year Four, QAP received mission funding to continue the family planning improvement collaborative that had been initiated in October 2004 with core funding and to expand the collaborative to six additional facilities in Dar es Salaam Region. The main objectives of the FP collaborative are to provide information on FP and HIV to all the Reproductive and Child Health Service (RCHS) clients at facilities; improve privacy; improve assessment, counseling, and screening for medical eligibility screening; and improve method mix. This activity is described in greater detail in section 2.8.

Some of the improvements introduced through the collaborative include: introduction of exit interviews, record reviews, and observation techniques to monitor service performance; better storage and retrieval systems for client cards; FP posters notifying all clients about the provision of services; and initiation of a routine group health talk to RCHS clients to strengthen the knowledge of the services offered, risks of HIV transmission, and HIV prevention, including dual protection.

The final learning session of the family planning collaborative was held in July 2006. QI activities were turned over to the Regional and District Health Management Teams, who will follow up with the teams regarding progress toward addressing remaining quality gaps. At the formal closing of the collaborative, Dr. Deo Mtasiwa, the Dar Es Salaam Regional Medical Officer of Health, expressed the view that facility teams in the Dar Region would serve as a resource for other regions in the quest for quality in FP and other services. Additional copies of the national FP policies, guidelines, standards, data collection tools and all materials of the learning sessions were distributed to the teams as reference materials for their facilities.

Improving Family Planning Information and Services for PLWHA in Russia

In January 2006, QAP initiated a new collaborative in Russia to serve the needs of HIV-positive families through improvements in family planning and other support services for HIV-positive mothers. The collaborative will involve four sites: three are also sites for the AIDS care and support collaborative, and the fourth is a second city in Saratov Oblast, Balakovo. In each site, a number of facilities are participating in the collaborative, including polyclinics, women's and youth consultation centers, social services centers, maternity homes, STI clinics, drug rehabilitation services, the Oblast AIDS Center, and local NGOs. QAP is leveraging past USAID-funded work by using JSI-produced materials, trainers, and results of the operational research implemented by JSI through their Maternal and Child Health Initiative activities in nine regions of Russia. Further information on this activity may be found in section 2.10.

Directions for FY07

QAP will continue its work with the MAQ/IBP and its Task Team and contribute to IBP's proposed new activity of Knowledge Management. In conjunction with USAID/Washington and field offices, QAP is developing plans for a new collaborative in Year Five on the topic of the integration of Family Planning and HIV/AIDS. The Russia FP collaborative will continue through Year Five.

4.2 SO2 Safe Motherhood

Background

Improving the quality of and access to essential obstetric care (EOC) remained as a key focus of the project's QA institutionalization activities and operations research program in Year Four. The Latin American EOC improvement collaborative has evolved into a stage of institutionalization and consolidation of the gains made and has generated two new spin-off collaboratives to address specific problem areas and objectives. A new EONC improvement collaborative was launched in Niger, building on the gains made in the PHI collaborative in that country. A new operations research study was initiated and completed in Nicaragua on a national assessment of the competence of skilled birth attendants. The project's safe motherhood research program published reports on hospital delays in treating obstetric

emergencies, the adherence of developing country hospitals to international obstetric standards, and identification of skilled birth attendants through hospital records and contributed a chapter on the results of questions contributed by QAP to Ecuador's national demographic and health survey regarding factors affecting decisions of mothers and families as to where to deliver. Manuscripts on the results of the Nicaragua competency assessment and the Latin American EOC collaborative were submitted to *Lancet* for consideration in a special series on maternal mortality reduction.

Activities and Results

Latin American Regional EOC Improvement Collaborative

In Year Four, the EOC collaborative was expanded to 12 of the 22 provinces of Ecuador, 14 of the 17 SILAIS in Nicaragua, and all five of the regions supported by USAID in Honduras. Close to 150 CQI teams are actively improving the quality of essential obstetric care in a similar number of facilities in the three countries. Most of these teams continue to measure and report regularly indicators of compliance with EOC quality standards, which show clear improvements across all three countries. These indicators show steady high quality levels for most of the EOC processes, suggesting that the EOC collaborative is being successful in institutionalizing the use of evidence-based EOC best practices in the participating facilities. Collaborative sites, particularly referral hospitals, continue to be challenged by the management of obstetric complications, and this will remain a key focus area in the coming year.

All three countries in the LAC EOC collaborative have implemented important mechanisms for assuring clinical competence in EOC, in the form of local EOC training centers where personnel who attend deliveries receive training to update them in evidence-based EOC best practices, with a focus on complications management. These local training centers are a cost-effective intervention, since they make intensive use of an array of local resources, mainly the time of specialists in the provincial hospital who act as EOC trainers. The Ecuador QAP team developed and tested a curriculum of eight clinical EOC training modules, including clinical contents, instructions and instruments. The modules include presentations on EOC main themes, sessions with anatomical models, case studies, and checklists for direct supervision of clinical competence.

The Latin American EOC collaborative website is regularly used at a rate of approximately 200-300 visits per month, totaling more than 11,000 visits so far. In addition, the QAP team in Ecuador continued to manage a bi-monthly list-serv called the "EOC Collaborative Forum", as a means to share teams' experiences on specific technical issues, such as the management of complications or how to avoid stock-outs of specific EOC drugs. The Collaborative Forum has currently completed its seventh edition, with a steady flow of contributors from Latin American countries.

In Ecuador, based on the very successful results of the EOC collaborative in introducing Active Management of Third Stage of Labor (AMTSL) in approximately 75 hospitals and health centers that attend deliveries, the MOH formally updated its national norms in early 2006 to include AMTSL. The MOH has also agreed to launch a spread collaborative to expand the use of AMTSL to the entire country covering all MOH facilities in the 22 provinces of Ecuador.

Institutionalization of continuous quality improvement methods progressed significantly during Year Four in all three countries, with increasing MOH leadership for monitoring and supporting the work of EOC quality improvement teams across regions in each country. In Ecuador and Honduras, facilities report their quality indicators to central QA Units, which maintain national databases that allow the national team to keep track, analyze and provide feedback on the progress of individual facilities and provinces in terms of the quality of essential obstetric care provided to patients.

Benin EONC Improvement Collaborative

Now in its second year of work in 14 facilities (10 health centers and posts and four hospitals) in two districts of Benin, the collaborative made good progress with respect to extending AMTSL and improving correct use of the partograph, especially in the 10 peripheral sites. More intensive improvement activities are needed, particularly in areas such as newborn care, infection prevention, and case management of obstetric and newborn complications. The four hospitals have experienced greater difficulties in making quality improvement changes than have lower level facilities. In the coming year, QAP will invest additional core funds in the Benin collaborative to strengthen its impact on newborn health and link EONC with PMTCT services. See section 2.1 for further information.

Niger EONC Improvement Collaborative

Building on the quality improvement capacity being scaled up through the PHI collaborative, QAP and the Ministry of Health of Niger launched in January 2006 a new EONC collaborative involving 28 of the 32 PHI sites, including all three national maternity hospitals and four of the five regional maternity hospitals in the country. Section 2.4 describes the planning and start-up of this new collaborative, which will focus initially on AMTSL, immediate and essential newborn care, improving client satisfaction, priority activities within antenatal care, infection prevention, and correct partograph use.

Operations Research

Additional information on these studies may be found in section 3.4.

Validity of CQI teams' Self-Assessments of Compliance with Standards

This study, begun in 2006, is now collecting data in 12 hospitals. It will be completed in the coming year.

Better Methods for Measuring Competency of SBAs

In Nicaragua, very little data existed about the knowledge and abilities of healthcare personnel who attend deliveries and provide prenatal and postpartum care. In Year Four, QAP collaborated with the Ministry of Health, UNICEF, PAHO, and CARE to conduct a national assessment of the competency of physicians and nurses related to delivery care, care of the newborn, and the management of obstetric complications. The data collection instruments used were developed by adapting and simplifying the SBA competency instruments used in QAP's four-country safe motherhood research. A representative sample of staff working in 20 MINSA hospitals that offer maternal and child healthcare (out of the 22 hospitals in the country) and 44 primary care facilities (out of a total of 175) yield a total of 1,358 health workers evaluated. The competency assessment involved two parts. The first was a knowledge questionnaire consisting of 58 questions, covering 10 topics. The second was an observation of actual performance of skills related to the management of delivery complications and newborn care. Anatomical pelvic models and newborn mannequins were used during this process.

The results showed a global average score of 62%. Average correct score varied by topic: it was 74% related to hemorrhage during the third trimester of the pregnancy; 74% for family planning; 69% for management of postpartum hemorrhage; 65% for management of sepsis; 60% for labor monitoring; 58% for partograph use; 52% for newborn care; 51% for pre-eclampsia and eclampsia; and 16% for sepsis prevention. Interestingly, the study found that health personnel with less than two years of work experience demonstrated higher knowledge on most topics, while personnel with more than two years of work experience demonstrated higher performance for delivery care and newborn care skills. The global scores for the skills observation were the following: adequate construction of the partograph, 51%; active management of the third stage of labor, 46%; manual extraction of placenta, 51%; bimanual uterine compression, 46%; immediate care of the newborn, 71%; and neonatal resuscitation, 55%.

These results have been presented to the Minister of Health in a written report in Spanish. An English summary report is being prepared.

Timeliness in Treating In-Hospital Obstetric Emergencies

This study, utilizing data from the four-country safe motherhood research, was published and disseminated in 2006. A journal article summarizing the results of the research on delays in treating eclampsia and pre-eclampsia has been prepared and will be submitted to *The Lancet* for publication.

Quality of Hospital Care in the Performance of Obstetric Tasks in 245 Cases

This study also drew on data from the four-country safe motherhood research. It was published in March 2006.

Generate Demand for Quality Maternal Care in Ecuador

In 2005, QAP, through the EOC collaborative in Ecuador, worked with the Provincial Health Directorate of Tungurahua and Family Care International to pilot test a method for improving the cultural adequacy of obstetric care in public facilities. Three workshops, each bringing together health providers, members of users' committees, traditional birth attendants and municipal officials, served to create a dialogue on potential cultural adaptations that would make facility-based delivery more attractive to community women and their families. Changes that were proposed and tested included attending birth in a squatting position, allowing visits by family members, and allowing birthing women to use herbal teas, among others. Based on this experience, QAP worked with Family Care International to develop a manual describing the methodology and tools. The Ministry of Health of Ecuador has approved the manual for publication and use throughout the country. A new operations research study was approved by QAP, which will test the effect of the methods developed in the pilot experience to increase users' satisfaction and utilization of MOH obstetric services, in particular institutional deliveries. The study will use a matched intervention-control design which will measure users' satisfaction as well as changes in the use of the facilities for institutional deliveries, both in the hospitals implementing the cultural adaptation model, as well as in the control hospitals. The study began in June 2006.

Questions on Maternal Health for the National Demographic and Health Survey in Ecuador

This study, involving the development of questions on factors contributing to decisions about where to deliver, was completed during the year. The full report of the ENDEMAIN survey was published in Ecuador in December 2005, including a chapter written by QAP. An English summary report is being prepared.

Improving the Process of Maternal Mortality Surveillance in Jamaica

This study was completed, and two potential journal articles were prepared by the Jamaican Principal Investigator to present its findings to the international community.

Community Follow-up of Maternal Complications in Jamaica

During the Feasibility Phase of this study, QAP worked closely with the Jamaica Ministry of Health and the University of the West Indies to design an intervention of postpartum follow-up of high risk cases (both mother and newborn) in order to reduce the risk of maternal and newborn morbidity and death. An evaluation of the intervention in one of the four Jamaican Health Regions was also designed. The intervention focused on some key conditions such as hypertension, pregnancy-induced hypertension, HIV, depression, stillbirths, and low birth weight. It required close communication between hospitals (where most Jamaican births occur) and community-based midwives. A national workshop of the key clinicians and managers from the four health regions and major hospitals worked through the details of the intervention and agreed to adopt the program nationally if it proved to be effective in the evaluation. However, following the national workshop, a careful literature review failed to find any evidence that follow-up postpartum care would have any impact. A systematic review by the Cochrane Library

concluded that all studies published to date had not found any evidence that such programs improved health. As a result of this lack of evidence (which may have been because such programs were poorly designed or implemented), QAP decided not to continue with the study.

Assessment of the Nicaragua Mother-Baby Friendly Hospital Program as a Focused Accreditation Success

This study is examining the achievements and lessons for other countries of the Mother-Baby Friendly Hospital Initiative as it has been implemented in Nicaragua. Progress on this study was delayed by a five-month physicians strike during the first half of 2006. Final data collection will be carried out in July and August.

Low Cost Measurements of the Quality of Care for Maternal Complications Proposal

The several parties that were planning this study saw two possible approaches. One was the retrospective use of patient records to obtain key indicators on the quality of care in certain obstetric emergencies. The second was the use of indicator data to improve quality. The first approach would have a minimal effect on the quality of care being measured, while the second approach would clearly influence the quality of care. However, the validity of the data obtained by the first approach was highly suspect, especially in countries where it might be most needed, whereas the second approach would produce much more valid data. Data that measured outcomes, such as near-miss complications, which have been successfully used in several studies, would probably not be low cost. Finally, the parties to the study decided that they did not have a good candidate method that was non-invasive, valid and low-cost, and that the funds that would be needed to try to find and then test such an approach without much assurance of success could be better spent elsewhere by QAP.

Directions for FY07

The Niger EONC collaborative will be fully rolled out, and the newborn component of the Benin collaborative will be further developed. The Latin American EOC collaborative will continue to work toward institutionalization of evidence-based interventions in Nicaragua, Honduras, and Ecuador. In Ecuador, a spread collaborative will expand the use of AMTSL to the entire country. In Honduras and Ecuador, a specific effort will be put in selected regional hospitals to increase the quality of the clinical management of obstetric complications and reduce case-fatality rates due to direct obstetric causes. In Nicaragua and Ecuador, specific efforts to expand the use of cultural adaptation methods for obstetric care will be put in place in significant portions of those countries.

In addition to publishing the final SBA competency evaluation instruments and the results from their application in Nicaragua, QAP expects to produce a manual describing how to apply the evaluation, either as a one-time baseline exercise or to apply the instruments in modular form as part of ongoing monitoring and supervision. Two operations research studies, one on the validity of self-assessment data generated by CQI teams participating in the collaborative and the other on the cultural adaptation of obstetric care, will be completed in Ecuador.

4.3 SO3 Child Health

Background

In the last decade QAP has worked in over 20 countries to improve service quality and clinical outcomes of neonatal, child health, and nutrition services. QAP's main focus has been to assist Ministries of Health and other organizations to design and strengthen the healthcare delivery systems so that they can improve the quality and outcomes of child healthcare services. To support country efforts in child health, QAP over the last year, continued to apply a variety of cutting-edge QA methods and tools, such as quality improvement collaboratives, performance-enhancing job aids, counseling materials, and computer-based training.

Activities and Results

Pediatric Hospital Improvement Collaboratives

During Year Four, QAP continued to support the activities and partnerships forged in building the multi-country pediatric hospital improvement collaboratives for improving the quality of hospital care for seriously ill children. In Niger and Nicaragua, the PHI collaboratives were scaled up to more facilities while increasing the quality of the technical content of the programs. The PHI collaborative in Malawi was concluded in October 2005 and results, lessons learned and recommendations shared with the Malawi MOH and its partners. Plans were put in place to ensure continued quality improvement and sharing of experiences with most of the support from the MOH directly. The Eritrean program also ended in October 2005 because of the close-out of all USAID-supported programs in the country. To ensure that the experiences gained in Eritrea were not lost, senior officials of the Eritrean MOH were briefed and QI tools and the program close-out report shared with them. The Tanzania program shifted emphasis to improving pediatric HIV/AIDS treatment and care through increasing the number of children tested and referred to care and treatment centers and by creating linkages with care and support groups among the local communities.

All the participating countries continued to make progress in strengthening quality of services. A major constraint in all the countries was limited staffing of facilities and the high turnover of staff, making it difficult to retain trained QI teams. Teams, nevertheless, met during learning sessions in all the countries and shared their results, best practices, and challenges for improving care. During the year QAP supported one to three learning sessions in each of the participating countries and facilitated mentoring on a monthly basis throughout the year by QA experts drawn from the Ministry of Health and QAP staff.

Because the PHI collaborative in Tanzania focuses on pediatric AIDS, provider knowledge and skills related to ART were updated. The collaborative has also focused on improving intra-facility coordination and networks to identify and refer for testing and treatment children suspected of having HIV infection. Critical Care Pathways to guide treatment were introduced in the Tanzania program. These are the source of data to monitor compliance with standards of care for common pediatric conditions, with a focus on malaria, pneumonia, and AIDS. All children classified as emergency or priority (P1 and P2) are admitted and the WHO algorithm used to screen those that are likely to be HIV-infected. The Tanzania program is working with the MOH to identify the best way to ensure follow-up of infants born to HIV-positive mothers for cotrimoxazole prophylaxis, future testing, and care and support.

One important lesson learned by all teams is the importance of ETAT as an entry point to improve management of seriously ill children. All teams made significant improvements in the implementation of ETAT during the year. Improvements in ETAT in all sites included strengthening triage systems and emergency care and a range of activities to increase compliance with emergency care standards, such as formal and continuous on-site training and introducing new job aids, medical records, and other tools for measuring progress and ensuring compliance. In many cases, personnel have been reassigned to ensure that skilled care is available in the emergency room, and as a result, in practically all facilities participating in the PHI, functioning triage systems now ensure that the sickest children receive prompt attention in working hours. Many sites have achieved 24-hour coverage, but for others this remains a challenge.

During the past year, a total of 14 hospitals in Nicaragua, 32 in Niger, and 22 in Tanzania continued to strengthen continuous quality improvement and monitoring compliance with standards of care. To facilitate this process, the home office advisors shared with the country teams state-of-the-art child survival interventions recommended by the international literature and USAID. These include community management of pneumonia, use of updated standards of hospital care including management of pediatric HIV/AIDS, cotrimoxazole prophylaxis of pneumocystic carini pneumonia, point of use potable water, community IMCI, use of insecticide-treated bednets for mothers and children under five, and the use of zinc oral rehydration solution, among other interventions.

The period experienced fast increase in the number of teams participating in the PHI collaboratives because of a number of reasons. In Tanzania, the MOH adopted the collaborative approach and directly supported the addition of 15 new facilities with minimal support from QAP. As expected, in Niger and Nicaragua, the spread of the collaborative was associated with faster improvements in compliance with standards of care mainly because of the adoption of the lessons learned and sharing and use of best practices demonstrated by the earlier sites.

During the past year, QAP country improvement teams implemented some innovative interventions. In Nicaragua, an alliance with UNICEF added \$250,000 to support the PHI program. In Niger, similar alliances were created with the Ministry of Health and local government departments to integrate PHI activities with national and regional implementation plans. A process of peer supervision in which teams from one facility provided support supervision and coaching to teams in other facilities was established in Niger. In Tanzania, the involvement of a local private emergency response firm, Right Guard, in the training for and implementation of ETAT is a promising private-public partnership. A similar private-public partnership in the implementation of PHI was established in Nicaragua involving nurses who were previously in public sector, but now in the private sector. These nurses are now PHI champions and are spreading best practices and promoting improved pediatric care in private facilities.

Lessons learned in Year Three showed how difficult it is to implement all the technical areas encompassed by PHI and achieve sustainable improvements in pediatric hospital care within the 12–18 month timeframe of collaboratives as conducted in developed countries. In response to this, all the country teams reduced the number of conditions they focused on to improve case management and monitor compliance with standards. This reduced workload on facility teams and improved the quality of the data obtained through monthly self-assessment. Another mechanism used to improve quality of data in the facilities participating in the PHI collaboratives has been the inclusion of health information staff on the quality improvement teams. This has also improved the capacity of teams to collate and use the data at the facility level to improve their own services.

IMCI Computer-Based Training

As was discussed in section 3.2, the generic IMCI CBT program that QAP developed in collaboration with the WHO Department of Child and Adolescent Health was field tested in Kenya in June and July 2005. The final report of the field test data analysis, which includes a generic cost analysis and scale-up recommendations, has been drafted and is now in editing. A guide for using the generic IMCI CBT in a country level IMCI training program is being prepared and will be disseminated together with the CD-ROM.

Final revisions to the Spanish version of the CBT course were proposed by the Ministry of Health of Bolivia. These final edits are now being incorporated, and a master CD-ROM will be produced and sent to Bolivia for reproduction and dissemination in country before the end of 2006.

Development of Job Aids to Improve Infant Feeding Counseling

Infant feeding counseling is a weak component of PMTCT programs throughout Africa. A growing interest has been expressed by several countries in the adaptation of the integrated set of HIV and infant feeding counseling job aids, developed by QAP in Tanzania. These job aids, based on the updated international HIV and infant feeding guidelines and related generic counseling materials, were initially developed and tested to strengthen the capacity of service providers to counsel mothers in PMTCT programs on their infant feeding options. To facilitate ease of use and continued compliance with international guidelines, the job aids use straightforward text and high impact images to convey highly technical concepts. The integrated set of job aids includes a “Question and Answer Guide: HIV & Infant Feeding – Answers to Questions Commonly Asked by Mothers, their Families and Communities”; a flow chart illustrating the counseling process and the job aids to be used during one-to-one counseling sessions

with HIV positive women; four counseling/take home brochures (Exclusive Breastfeeding, Infant Formula, Cow's Milk, and Expression and Heat Treatment); and five counseling cards (Infant-Feeding Options, AFASS, Relative Risk of Transmission, Positioning and Attachment, and Expression of Breast Milk). Two brochures on Maternal Nutrition and Feeding after 6 Months have been added to the set in Tanzania.

During Year Four, as a direct result of pro-active sharing of the English version of the Tanzanian integrated set with other international technical assistance projects and colleagues around the world (through conferences, workshops and via the QAP website and e-mail correspondence), QAP supported the adaptation of various elements of the Tanzanian set of job aids in multiple languages for two East African countries. In Uganda, USAID provided support through PEPFAR, and in Zimbabwe, the Elizabeth Glaser Pediatric AIDS Foundation and UNICEF facilitated QAP's collaboration with the MOH Nutrition and National PMTCT Programs. CORE members and several USAID collaborating agencies have recently explored options for QAP technical assistance and/or have requested permission to adapt the materials for use in Haiti, Mozambique, Malawi, Botswana, Swaziland, Zambia, The Gambia, and Namibia.

Strengthening Essential Neonatal Health Interventions and PMTCT Programs

Benefiting from the global resurgence of interest and recognition of the need to address newborn health, QAP expanded its efforts in the past year to strengthen the quality of essential newborn care, both within existing pediatric hospital improvement collaboratives and as part of essential obstetric and newborn care collaboratives in Benin and Niger. The new EONC collaborative started at national scale in Niger in January 2006 aims to respond to very high mortality of both mothers and newborns. The PHI assessments in Niger had identified a series of weaknesses in existing care for newborns that will be addressed more systematically through the new EONC collaborative, including lack of temperature monitoring/control for newborns, inappropriate umbilical treatments, few newborn vaccinations, poor promotion of breastfeeding, poor diagnostic evaluation of neonatal infections, lack of medical records for sick newborns, and lack of monitoring of neonatal mortality. Gains made in PHI facilities in Niger since 2003 will be systematically introduced as part of a continuum of maternal and newborn care in many of the same facilities already engaged in improving acute pediatric care. Similarly, the EOC collaborative started last year in Benin will now incorporate a stronger newborn care component.

In addition, in recognition of the fact that newborn care has been weak in the implementation of PHI activities by QAP, other countries implementing PHI collaboratives are also redoubling efforts to strengthen this component of pediatric hospital improvement and IMCI program implementation. Many hospitals involved in PHI have already taken steps to incorporate care of the sick newborn and to make stronger linkages between newborn health and maternal health. In Nicaragua, care of the newborn, especially asphyxia, has been improved. There is also emerging interest in EONC in Tanzania, and it is hoped that opportunities will arrive in the coming year to develop this possibility.

Collaboration with the World Health Organization

Collaboration continued between QAP and WHO Geneva in preparing for the upcoming Pediatric Hospital Improvement conference scheduled for November 2006 in Bali, Indonesia. The conference will review progress in the implementation of PHI and develop consensus on indicators to monitor processes and outcomes. Another area of collaboration is in the preparation of journal article on "Progress in the implementation of PHI," hopefully to be published in the *Bulletin of WHO*. Dr Martin Weber of WHO/ Geneva, reviewed the draft paper and made good suggestions which will be incorporated into the manuscript. WHO also reviewed the final version of the IMCI CBT before it was evaluated for cost-effectiveness in Kenya. QAP also continued to have strong partnerships with WHO country offices to support the implementation of PHI activities in Nicaragua, Tanzania, Malawi, and Niger.

Directions for FY07

QAP's priorities for the coming year include greater focus on monitoring compliance with standards of care for seriously ill children, including those with HIV/AIDS. It is expected that the program will also include greater attention to essential newborn care as well as care for the sick newborn. Linkages between IMCI, PHI, and community IMCI to ensure the continuum of care in child health programs will be emphasized in Niger, Tanzania, and Nicaragua. At the global level, work will continue to develop better and simpler tools and guidelines for local supervisors and for teams to collect, analyze, and use data for decision making. This will include better coordination and sharing experiences and lessons learned between the different QAP country programs. Efforts to build capacity in local institutions and thereby create more viable and sustainable collaborative networks will continue to be sought, as will strategies to address the more pervasive problems, such as high staff turnover, the need to provide more on-site support, and the integration of quality improvement activities into national programs and systems for sustainability.

A new operations research study to measure the validity of self-assessment in monitoring compliance with standards of care in PHI has been proposed for implementation in Tanzania. QAP will also continue to work with WHO Geneva and its regional and country offices to disseminate and implement the RCM pocket book and to disseminate the IMCI CBT program. QAP will also prepare and disseminate technical papers on the development, application, and results of the PHI collaborative.

4.4 SO4 HIV/AIDS

Background

The overall strategy of QAP's HIV/AIDS program is to create sustainable systems of health services delivery for quality HIV/AIDS care and support, including services for sexually transmitted infections and opportunistic infections, in developing countries. QAP support is in concert with USAID's objectives and seeks to 1) increase use of HIV/AIDS services and preventive practices, including counseling and testing, PMTCT, and ART; 2) increase access to these services; 3) improve provider knowledge and skills related to HIV/AIDS; 4) improve performance of laboratories and diagnostic services; 5) test strategies for appropriate staffing of health systems; 6) develop and implement models and best practices for comprehensive, high quality HIV/AIDS services, including ART, and 7) strengthen national policies and guidelines in support of HIV/AIDS services.

Activities and Results

Human Resources and Human Capacity Development

The Rwanda assessment of HIV workforce and training needs, options, and costs for providing quality PMTCT, VCT, and ART services was presented in draft form to the Government of Rwanda and the USAID Mission in June 2005. Individual reports for the three phases of the study (current staffing levels; data collection in sample sites on HIV/AIDS service quality and time required; and staffing scenarios and cost implications) were edited and published during the year. A summary report synthesizing key findings from all three phase reports was drafted by Initiatives, Inc. and submitted to QAP in February 2006. The summary report is in technical editing and will be published in the fall.

Improving the Quality of HIV/AIDS Care

HIV/AIDS Services Strengthening in South Africa

During Year Four, QAP provided direct coaching and quality improvement support for counseling and testing, PMTCT, basic care and support, and ART services to 92 facilities in the Eastern Cape, KwaZulu-Natal, Limpopo, and Mpumalanga Provinces of South Africa. QAP also initiated partnerships with local

non-governmental organizations in two provinces to provide home-based care and community-based support for persons living with HIV/AIDS. (See section 2.6.)

Rwanda HIV/AIDS Improvement Collaboratives

In Year Four, QAP continued to support the Government of Rwanda in implementing the prevention of mother-to-child transmission of HIV/voluntary counseling and testing (PMTCT/VCT) improvement collaborative and an ART improvement collaborative to improve the management and service quality of antiretroviral treatment. During Year Four, the PMTCT collaborative added 21 new sites, to reach a total of 37 PMTCT sites spanning all 12 provinces in the country. The ART collaborative continued in 15 of the original 16 sites (one site dropped out of the collaborative). USAID/Rwanda has requested that QAP wrap up its support to the collaboratives by September 2006. A final conference will be held in Kigali in August 2006 to review best practices developed in the collaboratives and make recommendations for spreading improvements to additional sites. (See section 2.5 for more details on activities and results of the Rwanda collaboratives.)

HIV/AIDS Care Improvement Collaborative in Russia

In collaboration with the American International Healthcare Alliance, QAP is working with local health authorities in four territories to develop a comprehensive model system of care, treatment, and support for HIV-infected and AIDS patients. Teams have been organized in each territory to address four main issues in HIV/AIDS services delivery in Russia: access and retention of patients, coordination of care, clinical management, and TB-HIV co-infection. Two inter-regional learning sessions were held during Year Four. In addition, QAP has also helped to organize regional and national events to disseminate evidence and best practices related to HIV/AIDS, including a two-day round table in Moscow on coordinating HIV and TB co-infection detection and treatment and training in quality HIV counseling for regional trainers. In June 2006, QAP organized with WHO a national learning session on scaling up ART services in the Russian Federation which was highly praised by the USAID Mission. In January 2006, QAP began a new activity in Russia to develop a collaborative to improve the comprehensiveness of services to meet the needs of HIV-positive mothers, including social services, pediatric centers, women's consultation clinics, maternity hospitals, and family planning services. (See section 2.10.)

ART Collaborative in Uganda

With PEPFAR funding, QAP and the MOH initiated in 2005 an ART improvement collaborative which would be implemented at national scale in all 11 regions of Uganda as part of a national HIV/AIDS Quality of Care Initiative. Fifty-seven sites were then selected to participate in the collaborative, mainly district hospitals, in 51 of the country's 56 districts. The first learning session of the collaborative was held as four regional sessions in January 2006, and a second round of regional learning sessions was held in April at which teams reviewed their baseline measurements and began to plan changes to introduce. Teams are now engaged in testing changes and monitoring results. (See section 2.9.)

Pediatric Hospital Improvement/Pediatric AIDS Collaborative in Tanzania

The PHI collaborative continued in seven hospitals in Tanzania with a focus on detection, diagnosis, and referral of pediatric HIV infections. At the fourth learning session of the collaborative in November 2005, the Ministry of Health funded the participation of 15 hospitals from three new regions to join the collaborative and apply lessons and approaches from the initial seven sites. The MOH assumed most of the cost of the training of the new sites. In the coming year, the program will direct more improvement efforts at ensuring the continuum of care for HIV-infected infants and children and at facilitating and monitoring linkages with groups providing community care of pediatric HIV/AIDS. Further scale up to the southern region of the country is also planned.

Improved HIV/TB Care and Support in Lesotho and Swaziland

QAP is providing technical assistance to the Ministry of Health and Social Welfare in Lesotho and in Swaziland to help the National Tuberculosis and HIV/AIDS programs in each country to develop integrated service delivery models and guidelines for health facilities and providers. QAP is also supporting clinical training on HIV-TB and in support systems such as supervision and information systems for the Ministry, NTP, and other service delivery partners.

HIV/AIDS Care Improvement in Nicaragua

QAP began working with the Ministry of Health in September 2005 to reorganize and restructure its STI-HIV/AIDS program from a vertical program to an integrated model of care. QAP has assisted with the development of guidelines for quality counseling for HIV testing, processing of HIV tests through the MINSA lab network, care and treatment of persons with HIV/AIDS, and for integration of activities to prevent mother-to-child (vertical) transmission of HIV in maternal and child healthcare. QAP is also supporting training activities for counselors, clinical staff, and lab personnel (see section 2.13).

Improving the Quality of Infant-Feeding Counseling for HIV-positive Mothers

The job aids and counseling brochures developed in Tanzania based on the WHO generic counseling guide have been introduced in five of Tanzania's 22 regions. QAP supported training of a core group of 110 trainers who in turn have trained hundreds of colleagues in the use of the materials to standardize infant feeding counseling for HIV-positive women. During Year Four, QAP provided technical assistance for the adaptation of the job aids to the local context in both Zimbabwe and Uganda.

Development of a Tool to Assist USG Missions and Partners to Plan, Monitor, and Evaluate the Quality of Programming for Orphans and Vulnerable Children (OVC)

QAP is providing technical assistance to OGAC in the development of a tool to assist USG Missions and partners to reach a consensus on quality aspects of OVC programming and then to choose indicators to monitor and evaluate the quality of OVC care and support. A prototype tool will be field tested in August 2006 and revisions will be made after this test. This work is a cooperative effort of OGAC, PACT, FHI, MEASURE/Evaluation, and QAP.

Operations Research

- 1. Adherence to ART:* QAP conducted in Year Two a study of antiretroviral therapy adherence in King Fayçal hospital in Kigali, the most prestigious treatment facility in the country. The Government of Rwanda and USAID requested that the study be expanded in Year Three to four additional sites. Data collection was completed in Year Two. Data are pending analysis by QAP headquarters staff.
- 2. Stigma in HIV/AIDS health workers:* QAP initiated studies on stigma of healthcare workers directed against HIV-positive clients in Rwanda and Tanzania in Year One. In each country, interviews were conducted with providers in several clinics relating to their knowledge of HIV, their knowledge and fears about transmission of HIV in the clinic setting, and their attitudes toward HIV-positive patients. Data collection was completed in Year Two. Data collected in Tanzania have been analyzed by QAP headquarters staff and a research report is being drafted. In Tanzania, the study found that receipt of HIV training, being male, and being a doctor or medical officer were associated with increased knowledge of HIV and fewer negative attitudes towards HIV patients. Stigma study data from Rwanda are pending analysis by headquarters staff.

Directions for FY07

QAP will continue support for the implementation of HIV/AIDS improvement collaboratives in Uganda, Russia, and Tanzania in Year Five. In South Africa, HIV/AIDS improvement activities will be extended to a fifth province, North West. Activities in Rwanda will be completed by September 2006. In Tanzania and Uganda we will continue to provide assistance for scaling up the use of health worker job aids and

mother counseling materials for the feeding of infants of HIV-positive mothers. The team in Nicaragua will continue assistance to the MOH in expanding and improving HIV/AIDS testing and prevention of mother-to-child transmission. In addition, a new HIV/AIDS collaborative will start there in July 2006. We will continue our assistance to development of the tool for improving OVC programming. Finally, we will carry out an evidence study on OVC care and support in low incidence countries in collaboration with UNICEF.

4.5 SO5 Infectious Disease: Malaria

Background

QAP's malaria work in West Africa has focused on improving malaria prevention and case management for children and pregnant women at the first referral level as part of the PHI collaborative in Niger and the EONC collaboratives in Benin and Niger. The Niger PHI collaborative has emphasized improved pediatric malaria care including improved assessment and management of malaria complications at the first referral level. The Benin and Niger EONC collaboratives have standardized Intermittent Preventive Therapy as one essential element of the antenatal care improvement package. QAP has continued to collaborate with WHO to use quality design principles to improve diagnosis of malaria through use of rapid diagnostic tests in rural areas with limited access to formal health services.

Activities and Results

Malaria Collaborative in Rwanda

The malaria collaborative, begun in 2003, was extended in April and May 2006 to 31 new sites in the same four districts in which the original 23 sites are located. Through this expansion, the PNLP aims to rapidly scale up lessons and successful changes made by the initial teams to other facilities. Although the collaborative is currently scheduled to end in September 2006, the MOH is seeking donor funding to continue malaria quality improvement activities in additional sites. (See section 2.5 for more details.)

Development and Field Testing of RDTs in Zambia

QAP staff completed a three-week visit to Zambia from January 16-February 3, 2006. During this trip, QAP staff worked with the National Malaria Control Center (NMCC), the District Health Management Team of Luangwa District, Lusaka Province, and WHO to develop a draft job aid that enables community health workers (CHWs) to use malaria rapid diagnostic tests. The project team carried out formative research to determine appropriate content for the job aid, conducting six focus groups with some 25 CHWs from the district. Based on results from these focus groups, the team then developed a draft job aid in one local language (Nyanja). We tested this draft with an additional 8-10 CHWs in two additional focus groups. While the draft appeared to work quite effectively, additional minor revisions were made to the job aid based on the results of the last two focus groups. WHO's Tropical Disease Research unit has provided approximately 50% of the funding for QA technical assistance on this initiative.

QAP staff completed a second trip to Zambia from June 24-July 10, 2006. During this trip, QAP, WHO, and the Zambian NMCC completed systematic testing of the job aid developed on the earlier trip and designed a three-hour orientation program to introduce the job aid. Systematic testing consisted of three rounds of observations: one using only the RDT package instructions, a second using only the job aid, and a third using both the job aid and the three-hour orientation. A different group of CHWs participated in each round. Each participating CHW carried out three rapid diagnostic tests on three different patients with an observer recording the number of steps completed correctly or incorrectly on a checklist. These three rounds of testing took place in Chibombo and Chongwe Districts of Lusaka Province. As in the previous trip, WHO covered all local field costs and continued to subsidize the cost of QAP technical assistance.

Directions for FY07

Absent new funding, QAP's malaria work during FY07 will be limited to completing the operations research and RDT work begun in previous years. A third visit to Zambia is tentatively scheduled for October or November 2006. The purpose of that trip will be to assist the NMCC to Zambia to launch a 12-month prospective trial of RDT use by CHWs assisted by the job aid and orientation program developed during previous visits. The trial will take place in Chipata District of Zambia's Eastern Province. All CHWs in the district (approximately 50) will be trained using the orientation package. All trainees will be required to demonstrate ability to correctly carry out all essential RDT steps before being considered competent to carry out the RDT in their home village. Each CHW will then receive a job aid and sufficient supplies of RDTs and ACT for 12 months. All other malaria-related activities for FY07 will be carried out as part of ongoing SO3 activities unless new support from the Presidential Malaria Initiative becomes available over the course of the year.

4.6 SO5 Infectious Disease: Tuberculosis

Background

Tuberculosis continues to pose a serious threat to public health in many countries, a threat that has been exacerbated by the emergence of HIV/AIDS. Most countries with high burden of TB face many challenges due to case detection difficulties, presence of a vast private sector, inadequate provider knowledge and treatment behavior, and lack of patient adherence. QAP is working closely with WHO and country-level national TB control and prevention programs in selected high-burden countries to improve case detection, case management, and as a result, case cure rates.

Activities and Results

Improving Quality of TB Case Management in Bangladesh

QAP organized a three-day training on quality of care and its integration with supervision and monitoring for all district-level supervisors/managers (both government and NGO), based on request from the NTP. A total of 119 participants attended the course, which was facilitated jointly by NTP, WHO, and QAP. A manual detailing the course curriculum was produced, entitled *Improving Quality and Strengthening Monitoring and Supervision of DOTS: A Curriculum for District-Level Supervisors*.

Based on findings from the QAP-commissioned situational analysis conducted in 2004, QAP developed a Quality Supervision and Monitoring (QSM) strategy for expanding access to and improving the quality of directly observed treatment. The QSM strategy is being piloted in four sub-districts in each of six districts across the country, i.e., 24 service delivery facilities in all. A day-long orientation was conducted for the district- and sub-district-level supervisors along with administrative heads of the 24 QSM pilot sites. The tools and processes for monitoring, supervision and improving quality of TB case management were discussed in detail, along with hands-on practice.

QAP conducted a baseline assessment during January-May 2006 prior to the implementation of the QSM pilot in the 24 intervention facilities and in six comparison facilities. The baseline showed that while there was, in general, a gap between provider knowledge and skills/practice (the overall knowledge score was 84%, versus skills score of 76%), the intervention and comparison sites were roughly comparable in terms of the provider assessments and TB service data. Supervisors began implementing the QMS intervention, with the revised supervision checklists and follow-up tools, in June 2006.

In March 2006, Isagani Perla provided short-term technical assistance to the NTP to assist with updating the NTP's PPM-DOTS strategy and technical guidelines. QAP also commissioned a short-term local consultant (Dr. Sanaul Bashar) to draft a laboratory manual on ensuring high quality sputum smear microscopy.

Developing Public-Private Partnerships in Cambodia

QAP, with funds leveraged from the bilateral program, has provided technical support to the Cambodian NTP in the following three areas: 1) Policy analyses, including review of policies governing private sector participation and community DOTS; 2) Quality of lab services in the private sector; and 3) Development of a public-private mix strategy. During the past year, a PPM model was implemented in Batambang Province. Private providers were trained in screening TB suspects and have been linked in with public TB facilities. The number of referrals from private providers (including both pharmacists and physicians) to public facilities has been on the rise. Based on the success of the PPM pilot, NTP is planning to scale up this model to other districts in the country.

Southern Africa

In South Africa, QAP continued to use QA tools to improve TB case detection and case management as well as to increase TB-HIV cross-referrals. QAP has developed informational materials on TB testing, conducted on-the-job training, and enhanced data collection and data aggregation tools. QAP carried out a follow-on assessment of the effects of earlier QAP assistance to improve the quality of TB services that was stopped in mid-2004. Preliminary data show many facilities that stopped receiving external supervision and did not perform TB cohort analyses on an ongoing basis saw significant declines in their performance. QAP is providing support for strengthening TB-HIV integration in both Lesotho and Swaziland. (See sections 2.3, 2.6, and 2.7 for additional information.)

Russia HIV/AIDS-TB Integration

QAP has continued to provide support to TB and HIV programs in four territories to strengthen management of TB-HIV co-infection. Over the past year, the proportion of TB and HIV cases getting cross referrals has risen steadily. QAP conducted several learning and technical expert sessions for TB and HIV providers in the past year. Also, a senior delegation from Russia visited South Africa in June 2006 to observe TB-HIV improvement work in the Western Cape and KwaZulu-Natal Provinces.

Multi-Country Study of the Quality of TB Care and Laboratory Services

This study was cancelled by the USAID/Washington TB group.

Training in Quality Improvement at the Meeting of the International Union Against Tuberculosis and Lung Disease (IUATLD)

QAP again conducted a training workshop on TB quality improvement at the IUATLD annual meeting in October 2005. The workshop fit very well with this year's conference theme of "Scaling up and sustaining effective TB, HIV and Asthma Prevention and Control." The objective of the QI course was to describe quality issues in TB programs and to identify specific quality improvement tools and approaches that could be used to improve TB program outcomes. The course utilized a format of general discussions on tools and approaches for quality improvement, as well as presentations from five different countries (Bangladesh, Cambodia, India, Russia, and South Africa). The country presentations highlighted strategies for integrating the private sector as well as improving TB-HIV coordinated activities. Major challenges identified during discussions were provider compliance with national norms; poor supervision of patients and providers to increase treatment outcomes through improved compliance/adherence; and poor access to and quality of lab services. The course was attended by over 25 people.

Work with the STOP TB Secretariat

QAP participates on the DOTS Expansion Working sub-Groups on Laboratory Strengthening and PPM. QAP provides inputs to these working groups on incorporating quality issues in the laboratory and public-private mix based on our experience from the field.

Directions for FY07

During the next fiscal year, QAP will continue providing technical support to programs in Bangladesh, Cambodia, Lesotho, Russia, Swaziland, and South Africa. In addition, we plan to start two new collaboratives in India and Vietnam. QAP will also conduct a post-graduate course on QI at the 37th IUATLD meetings to be held in Paris in October 2006.

As part of its plan to develop a package of evidence-based services to increase the access to and improve the quality of TB case management in Bangladesh, QAP will support the pilot of the Quality, Supervision and Monitoring intervention at the 24 NTP sites for one full year. The Bangladesh NTP to scale up the use of the tools/checklists in routine supervision across the network. QAP will also partially support the pilot of a pharmacy initiative (Pharmacy Development Initiative) with the NTP to improve and enhance PPM in directly observed treatment.

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